Colorado Department of Public Health and Environment

OPERATING PERMIT

Colorado Interstate Gas Company, LLC - Flank Compressor Station

First Issued: October 1, 1998
Renewed: January 1, 2013
Last Revised: **DRAFT**

AIR POLLUTION CONTROL DIVISION
COLORADO OPERATING PERMIT

FACILITY NAME:	Flank Compressor Station	OPERATING PERMIT NUMBER
FACILITY ID:	0090001	**95OPBA029**
RENEWED:	January 1, 2013	
EXPIRATION DATE:	January 1, 2018	
MODIFICATIONS:	See Appendix F of Permit	

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:
Colorado Interstate Gas Company, LLC
2 North Nevada Avenue
Colorado Springs, CO 80903

PLANT SITE LOCATION:
Section 5, T34S, R42W
Baca County
Colorado

INFORMATION RELIED UPON
Operating Permit Renewal Application Received: August 24, 2009
And Additional Information Received: July 6, 2009 and February 28, July 12, August 3, August 31, October 30 and November 2, 2012

Nature of Business: Natural Gas Transmission and Storage
Primary SIC: 4922

RESPONSIBLE OFFICIAL (PRIMARY)
Name: Bruce L. Jones
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FACILITY CONTACT PERSON
Name: David Bieda
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RESPONSIBLE OFFICIAL (SECONDARY)
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Title: Director, Rocky Mountain Division
Phone: (719) 520-4451

SUBMITTAL DEADLINES
Semi-Annual Monitoring Period: January 1 - June 30, July 1 – December 31
Semi-Annual Monitoring Report: Due on August 1, 2013 & February 1, 2014 & subsequent years
Annual Compliance Period: January 1 to December 31
Annual Compliance Certification: Due on February 1, 2014 and subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

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SECTION I - General Activities and Summary

1. Permitted Activities

1.1 This facility is used for natural gas transmission as defined under Standard Industrial Classification 4922. Natural gas is injected into the Flank Storage Field in the summer and is withdrawn during the winter season. After withdrawal, the gas is dehydrated by triethylene glycol dehydrators on site and then pumped into the main line for market.

The facility is located in Section 5, T34S, R42W, approximately 16 miles south of Stonington in Baca County. Baca County Road M is two miles to the north which leads east across the state line into Kansas State Highway 51. The area in which the plant operates is designated as attainment for all criteria pollutants.

There are two states within 50 miles of the plant, Oklahoma and Kansas. There are no Federal Class I designated areas within 100 kilometers of the plant.

1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.

1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the modification procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. Any requirements that were designated in the compliance orders on consent signed August 30, 2002 and February 17, 2004 (No. 2002-093) as applicable requirements have been incorporated into this operating permit and shall survive reissuance as applicable requirements. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: 12BA485-1, 12BA485-2, 12BA485-3, 12BA485-5, 92BA348, 93BA340, 95BA518-1 and 95BA518-2. There is also an EPA PSD permit issued March 31, 1980.

1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section II – Conditions 6.4, 6.5.1 and 6.5.2 (Colorado Regulation No. 7 Statewide Control Requirements for Oil and Gas Operations) and Section IV - Conditions 3.g (last paragraph), 14 and 18 (as noted).

1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit.

2. Alternative Operating Scenarios

Temporary and Permanent Engine Replacement (9/11/14 version). The following Alternative Operating Scenario (AOS) for the temporary and permanent replacement of natural gas fired reciprocating internal combustion engines has been reviewed in accordance with the requirements of Regulation No. 3., Part A, Section IV.A, Operational Flexibility-Alternative Operating Scenarios, Regulation No. 3, Part B, Construction Permits, and Regulation No. 3, Part D, Major Stationary Source New Source Review and Prevention of Significant Deterioration, and it has been found to meet all applicable substantive and procedural requirements. This permit incorporates and shall be considered a Construction Permit for any engine replacement performed in accordance with this AOS, and the permittee shall be allowed to perform such engine replacement without applying for a revision to this permit or obtaining a new Construction Permit.

2.1 Engine Replacement

The following AOS is incorporated into this permit in order to deal with a compressor engine breakdown or periodic routine maintenance and repair of an existing onsite engine that requires the use of either a temporary or permanent replacement engine. "Temporary" is defined as in the same service for 90 operating days or less in any 12 month period. "Permanent" is defined as in the same service for more than 90 operating days in any 12 month period. The 90 days is the total number of days that the engine is in operation. If the engine operates only part of a day, that day shall count as a single day towards the 90-day total. The compliance demonstrations and any periodic monitoring required by this AOS are in addition to any compliance demonstrations or periodic monitoring required by this permit.

All replacement engines are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping), and shall be subject to any shield afforded by this permit.

The results of all tests and the associated calculations required by this AOS shall be submitted to the Division within 30 calendar days of the test or within 60 days of the test if such testing is required to demonstrate compliance with NSPS or MACT requirements. Results of all tests shall be kept on site for five (5) years and made available to the Division upon request.

The permittee shall maintain a log on-site and contemporaneously record the start and stop date of any engine replacement, the manufacturer, date of manufacture, model number, horsepower, and serial number of the engine(s) that are replaced during the term of this permit, and the manufacturer, model number, horsepower, and serial number of the replacement engine. In addition to the log, the permittee shall maintain a copy of all Applicability Reports required under Condition 2.1.2 and make them available to the Division upon request.

2.1.1 The permittee may **temporarily** replace an existing compressor engine that is subject to the emission limits set forth in this permit with an engine that is of the same manufacturer, model, and horsepower or a different manufacturer, model, or horsepower as the existing engine without modifying this permit, so long as the

temporary replacement engine complies with all permit limitations and other requirements applicable to the existing engine. Measurement of emissions from the temporary replacement engine shall be made as set forth in Condition 2.2.

The permittee may temporarily replace a grandfathered or permit exempt engine or an engine that is not subject to emission limits without modifying this permit. In this circumstance, potential annual emissions of NO_X and CO from the temporary replacement engine must be less than or equal to the potential annual emissions of NO_X and CO from the original grandfathered or permit exempt engine or for the engine that is not subject to emission limits, as determined by applying appropriate emission factors (e.g. AP-42 or manufacturer's emission factors).

2.1.2 The permittee may **permanently** replace the existing compressor engine for the emission points specified in Table 1 with the manufacturer, model, and horsepower engines listed in Table 1 without modifying this permit so long as the permanent replacement engine complies with all permit limitations and other requirements applicable to the existing engine as well as any new applicable requirements for the replacement engine. Measurement of emissions from the permanent replacement engine and compliance with the applicable emission limitations shall be made as set forth in Condition 2.2.

An Air Pollutant Emissions Notice (APEN) that includes the specific manufacturer, model and serial number and horsepower of the permanent replacement engine shall be filed with the Division for the permanent replacement engine within 14 calendar days of commencing operation of the replacement engine. The APEN shall be accompanied by the appropriate APEN filing fee, a cover letter explaining that the permittee is exercising an alternative operating scenario and is installing a permanent replacement engine, and a copy of the relevant Applicability Reports for the replacement engine. Example Applicability Reports can be found in Appendix G. This submittal shall be accompanied by a certification from the Responsible Official indicating that "based on the information and belief formed after reasonable inquiry, the statements and information included in the submittal are true, accurate and complete".

This AOS cannot be used for permanent engine replacement of a grandfathered or permit exempt engine or an engine that is not subject to emission limits.

The permittee shall agree to pay fees based on the normal permit processing rate for review of information submitted to the Division in regard to any permanent engine replacement.

Table 1

Emission Point	Replacement Engine	Periodic Monitoring	Stack Test	MACT Status
E001	Exact replacement of engine.	See Footnote 1	No	Facility is an area source for purposes of the RICE MACT
E002	Exact replacement of engine and associated control device	See Footnote 2	No	
E003	Exact replacement of engine and associated control device	See Footnote 2	No	
E004	Exact replacement of engine and associated control device	See Footnote 2	No	
E005	Exact replacement of engine.	See Footnote 3	No	

[1] Monitoring is as specified in Section II.1 of this permit

[2] Monitoring is as specified in Section II.2 or this permit.

[3] Monitoring is as specified in Section II.3 of this permit.

2.2 Portable Analyzer Testing

Note: In some cases there may be conflicting and/or duplicative testing requirements due to overlapping Applicable Requirements. In those instances, please contact the Division Field Services Unit to discuss streamlining the testing requirements.

Note that the testing required by this Condition may be used to satisfy the periodic testing requirements specified by the permit for the relevant time period (i.e. if the permit requires quarterly portable analyzer testing, this test conducted under the AOS will serve as the quarterly test and an additional portable analyzer test is not required for another three months).

The permittee may conduct a reference method test, in lieu of the portable analyzer test required by this Condition, if approved in advance by the Division.

The permittee shall measure nitrogen oxide (NO_X) and carbon monoxide (CO) emissions in the exhaust from the replacement engine using a portable flue gas analyzer *within seven (7) calendar days of commencing operation of the replacement engine*.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's web site at: https://www.colorado.gov/pacific/cdphe/portable-analyzer-monitoring-protocol.

Results of the portable analyzer tests shall be used to monitor the compliance status of this unit.

For comparison with an annual (tons/year) or short term (lbs/unit of time) emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

For comparison with a short-term limit that is either input based (lb/mmBtu), output based (g/hp-hr) or concentration based (ppmvd @ 15% O_2) that the existing unit is currently subject to or the replacement engine will be subject to, the results of the test shall be converted to the appropriate units as described in the above-mentioned Portable Analyzer Monitoring Protocol document.

If the portable analyzer results indicate compliance with both the NO_X and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the NO_X and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the NO_X or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the NO_X and CO emission limitations or until the engine is taken offline.

2.3 Applicable Regulations for Permanent Engine Replacements

2.3.1 Reasonably Available Control Technology (RACT): Reg 3, Part B § II.D.2

All permanent replacement engines that are located in an area that is classified as attainment/maintenance or nonattainment must apply Reasonably Available Control Technology (RACT) for the pollutants for which the area is attainment/maintenance or nonattainment. Note that both VOC and NO_X are precursors for ozone. RACT shall be applied for any level of emissions of the pollutant for which the area is in attainment/maintenance or nonattainment, except as follows:

In the Denver Metropolitan PM_{10} attainment/maintenance area, RACT applies to PM_{10} at any level of emissions and to NO_X and SO_2, as precursors to PM_{10}, if the potential to emit of NO_X or SO_2 exceeds 40 tons/yr.

For purposes of this AOS, the following shall be considered RACT for natural-gas fired reciprocating internal combustion engines:

VOC:	The emission limitations in NSPS JJJJ
CO:	The emission limitations in NSPS JJJJ
NO_X:	The emission limitations in NSPS JJJJ
SO_2:	Use of natural gas as fuel
PM_{10}:	Use of natural gas as fuel

As defined in 40 CFR Part 60 Subparts GG (§ 60.331) and 40 CFR Part 72 (§ 72.2), natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet.

2.3.2 Control Requirements and Emission Standards: Regulation No. 7, Sections XVI. and XVII.E (State-Only conditions)

Control Requirements: Section XVI

Any permanent replacement engine located within the boundaries of an ozone nonattainment area is subject to the applicable control requirements specified in Regulation No. 7, section XVI, as specified below:

Rich burn engines with a manufacturer's design rate greater than 500 hp shall use a non-selective catalyst and air fuel controller to reduce emission.

Lean burn engines with a manufacturer's design rate greater than 500 hp shall use an oxidation catalyst to reduce emissions.

The above emission control equipment shall be appropriately sized for the engine and shall be operated and maintained according to manufacturer specifications.

The source shall submit copies of the relevant Applicability Reports required under Condition 2.1.2.

Emission Standards: Section XVII.E – State-only requirements

Any permanent engine that is either constructed or relocated to the state of Colorado from another state, after the date listed in the table below shall operate and maintain each engine according to the manufacturer's written instructions or procedures to the extent practicable and consistent with technological limitations and good engineering and maintenance practices over the entire life of the engine so that it achieves the emission standards required in the table below:

Max Engine HP	Construction or Relocation Date	Emission Standards in G/hp-hr		
		NO_X	CO	VOC
100<Hp<500	January 1, 2008	2.0	4.0	1.0
	January 1, 2011	1.0	2.0	0.7
500≤Hp	July 1, 2007	2.0	4.0	1.0
	July 1, 2010	1.0	2.0	0.7

The source shall submit copies of the relevant Applicability Reports required under Condition 2.1.2.

2.3.3 NSPS for spark ignition internal combustion engines: 40 CFR 60, Subpart JJJJ

A permanent replacement engine that is manufactured on or after 7/1/09 for emergency engines greater than 25 hp, 7/1/2008 for engines less than 500 hp, 7/1/2007 for engines greater than or equal to 500 hp except for lean burn engines greater than or equal to 500 hp and less than 1,350 hp, and 1/1/2008 for lean burn engines greater than or equal to 500 hp and less than 1,350 hp are subject to the requirements of 40 CFR Part 60, Subpart JJJJ. An analysis of applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in the Applicability Reports required under Condition 2.1.2. Any testing required by the NSPS is in addition to that required by this AOS. Note that the initial test required by NSPS Subpart JJJJ can serve as the testing required by this AOS under Condition 2.2, if approved in advance by the Division, provided that such test is conducted within the time frame specified in Condition 2.2.

Note that under the provisions of Regulation No. 6. Part B, section I.B. that Relocation of a source from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of Regulation No. 6 (i.e., the date that the source is first relocated to Colorado becomes equivalent to the manufacture date for purposes of determining the applicability of NSPS JJJJ requirements).

However, as of September 11, 2014 the Division has not yet adopted NSPS JJJJ. Until such time as it does, any engine subject to NSPS will be subject only under Federal law. Once the Division adopts NSPS JJJJ, there will be an additional step added to the determination of the NSPS. Under the provisions of Regulation No. 6, Part B, § I.B (which is referenced in Part A), any engine relocated from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of NSPS JJJJ.

2.3.4 Reciprocating internal combustion engine (RICE) MACT: 40 CFR Part 63, Subpart ZZZZ

A permanent replacement engine located at either an area or major source is subject to the requirements in 40 CFR Part 63, Subpart ZZZZ. An analysis of the applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in the Applicability Reports required under Condition 2.1.2. Any testing required by the MACT is in addition to that required by this AOS. Note that the initial test required by the MACT can serve as the testing required by this AOS under Condition 2.2, if approved in advance by the Division, provided that such test is conducted within the time frame specified in Condition 2.2.

2.4 **Additional Sources**

The replacement of an existing engine with a new engine is viewed by the Division as the installation of a new emissions unit, not "routine replacement" of an existing unit. The AOS is therefore essentially an advanced construction permit review. The AOS cannot be used for

additional new emission points for any site; an engine that is being installed as an entirely new emission point and not as part of an AOS-approved replacement of an existing onsite engine has to go through the appropriate Construction/Operating permitting process prior to installation.

3. Prevention of Significant Deterioration (PSD)

3.1 Based on the information provided by the applicant, this source is categorized as a minor stationary source as for PSD of the issuance date of this permit. Any future modification at this facility which is major by itself (i.e. Potential to Emit of $\geq$ 250 tons/year) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

Note that this facility was a major stationary source at one time and was issued a PSD permit by EPA.

3.2 The following Operating Permits are associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations: None

4. Accidental Release Prevention Program (112(r))

4.1 Based on the information provided by the applicant, the facility is not subject to the provisions of the Accidental Release Prevention Program (section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

Units S002 – S004 - Engines
Unit S008 – Triethylene Glycol Dehydrator

See Section II, Condition 8 for compliance assurance monitoring requirements.

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Emission Unit No./ Facility ID	AIRS pt No.	Description	Startup Date	Pollution Control Device
E001/ S001	009	Superior 4-cycle lean burn internal combustion engine, Model 6GTLB, Serial No. 295619, 7400 Btu/hp-hr, 825 hp, natural gas fired.	1993	None
E002/ S002	001	Superior 4-cycle standard rich burn internal combustion engine, Model 16G825, Serial No. 278739, 7844 Btu/hp-hr, 1475 hp, natural gas fired.	1981 NSCR installed December 2003	Each Engine Equipped with Non-Selective Catalytic Reduction (NSCR) Unit and an Air-Fuel Ratio Controller (AFRC)
E003/ S003	001	Superior 4-cycle standard rich burn internal combustion engine, Model 16G825, Serial No. 278729, 7844 Btu/hp-hr, 1475 hp, natural gas fired.	1981 NSCR installed December 2003	
E004/ S004	001	Superior 4-cycle standard rich burn internal combustion engine, Model 16G825, Serial No. 295039, 7844 Btu/hp-hr, 1475 hp, natural gas fired.	1982 NSCR installed December 2003	
E005/ S005	008	Superior 4-cycle low NO_X internal combustion engine, Model 8STB, Serial No. 321619, 7200 Btu/hp-hr, 1500 hp, natural gas fired.	1988	None
D001/ S007	012	Olman Triethylene Glycol Dehydrator, Model Enertek, Serial No. 41826, 15 MMscf/day capacity. East Dehydrator.	1992	None
D002/ S006	013	Olman Triethylene Glycol Dehydrator, Model Enertek, Serial No. 41825, 15 MMscf/day capacity. West Dehydrator	1992	None
D003/ S008	014	Olman Heath Triethylene Glycol Dehydrator with Condenser, Serial No. 296110, 135 MMscf/day capacity. Central Dehydrator. This unit is equipped with flash tank. Off gases from the flash tank are not emitted but are routed to the reboiler or the common fuel manifold for use as fuel in any fired equipment at the facility.	1989 Glycol cooled condenser installed January 2002	Glycol-Cooled Condenser
D004/ S009	015	Olman Heath Triethylene Glycol Dehydrator, Serial No. 1279P, 18 MMscf/day capacity. Field Dehydrator. This unit is equipped with a flash tank. Off gases from the flash tank are not emitted but are routed to the common fuel manifold for use as fuel in any of the fired equipment at the facility.	1985 Flare installed July 2009	Flare
B001 & H001/ S011 &S012	N/A	Peerless Boiler, Rated at 1.5 MMBtu/hr (formerly addressed in Colorado Construction Permit C12,485-2), natural gas-fired. Gas In-line Heater, Rated at 4.0 MMBtu/hr, natural gas-fired.		None

SECTION II - Specific Permit Terms

1. S001 - Superior 4-Cycle Lean Burn ICE, Model 6GTLB

Parameter	Permit Condition Number	Limitations Short Term	Limitations Long Term	Compliance Emission Factor	Monitoring Method	Monitoring Interval
NO_X	1.1		15.9 tpy	0.6 lb/MMBtu	Recordkeeping and Calculation	Monthly
CO			29.5 tpy	1.1 lb/MMBtu		
VOC			6.4 tpy	0.24 lb/MMBtu	Portable Flue Gas Analyzer	Quarterly
Natural Gas Consumption	1.2		60 MMscf/yr		Fuel Meter	Monthly
Heat Content	1.3				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Hours of Operation	1.4				Recordkeeping	Monthly
Opacity	1.5	Not to exceed 20%			Fuel Restriction	Only Natural Gas is Used as Fuel
MACT Subpart ZZZZ	1.6	Change Oil and Filter Inspect Spark Plugs Inspect all Hoses and Belts			See Condition 1.6.	

1.1 Emissions of Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions shall not exceed the limitations stated above (Colorado Construction Permit 93BA340, as modified under the provisions of Section I, Condition 1.3). Compliance with the emission limitations shall be monitored as follows:

1.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 7,400 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly natural gas consumption and the lower heating value of the fuel, as specified in Condition 1.3, in the equation below:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMBtu)}] \times [\text{Natural Gas Use (MMscf/month)}] \times [\text{Heat Content of Fuel (MMBtu/MMscf)}]}{2000 \text{ lbs/ton}}$$

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If the results of the portable analyzer testing conducted under the provisions of Condition 1.1.2 show that either the NO_X or CO emission rates/factors are greater

than the emission rates/factors listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test**.**

1.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 7.

1.2 Natural gas consumption shall not exceed 60 MMscf/yr (Colorado Construction Permit 93BA340, as modified under the provisions of Section I, Condition 1.3). Natural gas consumption shall be recorded monthly using the common fuel meter for units E001 – E005. Natural gas consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

1.3 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and the appropriate ASTM Methods or equivalent, if approved in advance by the Division, to calculate the Btu content. The Btu content of the gas shall be calculated for January and July, using the average composition of the gas as determined by the in-line gas chromatograph for those months. The Btu content of the natural gas shall be based on the lower heating value of the fuel.

If sampling is conducted, calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis. If the gas chromatograph data is used, calculations of monthly emissions for January through June shall be made using the January average Btu content and calculations of monthly emissions for July through December shall be made using the July average Btu content.

1.4 Hours of Operation will be monitored monthly and recorded and maintained to be available to the Division on request. Hours of operation shall be used to allocate natural gas use as indicated in Condition 1.2.

1.5 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for this engine.

1.6 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as set forth in Condition 10 of this permit.

2. S002, S003, S004 - Superior 4-Cycle Standard Rich Burn ICE, Model 16G825, Each Equipped with Non-Selective Catalytic Reduction Unit and Air-to-Fuel Ratio Controller

Parameter	Permit Condition Number	Limitations (**Unless Otherwise Specified, Apply to All Engines Combined**) Short Term	Limitations Long Term	Compliance Emission Factor	Monitoring Method	Monitoring Interval
NO_X	2.1	46.17 lb/hr for **each** engine	149.4 tpy	0.98 lb/MMBtu	Recordkeeping, Calculation Portable Flue Gas Analyzer Performance Test	Monthly Quarterly As Specified in Condition 2.1.3
CO			149.4 tpy	0.98 lb/MMBtu		
VOC			8.5 tpy	0.056 lb/MMBtu		
Natural Gas Consumption	2.2		304.05 MMscf/yr		Fuel Meter	Monthly
Heat Content	2.3				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Hours of Operation	2.4				Recordkeeping	Monthly
Opacity – **Applies to Each Engine**	2.5	Not to exceed 20%			Fuel Restriction	Only Natural Gas is Used as Fuel
Compliance Assurance Monitoring	2.6				See Condition 2.6.	
Air-to-Fuel Ratio Controller Setting	2.7				Recordkeeping	Monthly
Oxygen Concentration in Engine Exhaust	2.8				Portable Flue Gas Analyzer	Quarterly
Engine/Catalyst Operation and Maintenance Requirement	2.9				See Condition 2.9	
MACT Subpart ZZZZ Requirements	2.10	Change Oil and Filter Inspect Spark Plugs Inspect all Hoses and Belts			See Condition 2.10.	

2.1 Emissions from **all three** engines combined shall not exceed the limitations stated above (Colorado Construction Permits 12BA485-1 thru -3, as modified under the provisions of Section I, Condition 1.3, based on the requested emissions provided on the APEN submitted March 22,

2007 and the EPA PSD permit). Compliance with the emission limitations shall be monitored as follows:

2.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 7,844 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions **from each engine** as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly natural gas consumption and the lower heating value of the fuel, as specified in Condition 2.3, in the equation below:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMBtu)}] \times [\text{Natural Gas Use (MMscf/month)}] \times [\text{Heat Content of Fuel (MMBtu/MMscf)}]}{2000 \text{ lbs/ton}}$$

Monthly emissions **from each engine** shall be summed together and used in a twelve month rolling total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

Compliance with the hourly NO_X limitation shall be monitored by dividing monthly NO_X emissions **from each engine** by the number of hours the engine was operated in that month.

If the results of the portable analyzer testing conducted under the provisions of Condition 2.1.2 show that either the NO_X or CO emission rates/factors are greater than the emission rates/factors listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test.

2.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 7.

2.1.3 A performance test shall be conducted within 180 days following the replacement of the catalyst to re-establish the pressure drop across the catalyst baseline for use as the indicator range in the CAM plan included in Appendix G of the permit.

The permittee shall submit the proposed pressure drop baseline from any subsequent performance test for Division approval and begin monitoring under the new pressure drop baseline within 45 calendar days of the test. In addition, the permittee shall submit with the proposed baseline pressure drop a minor modification application to revise the permit to incorporate the proposed baseline pressure drop into the permit.

A stack testing protocol shall be submitted for Division approval at least thirty (30) calendar days prior to any performance of the test required under this condition. No

stack test required herein shall be performed without prior written approval of the protocol by the Division. The Division reserves the right to witness the test. In order to facilitate the Division's ability to make plans to witness the test, notice of the date(s) for the stack test shall be submitted to the Division at least thirty (30) calendar days prior to the test. The Division may for good cause shown, waive this thirty (30) day notice requirement. In instances when a scheduling conflict is presented, the Division shall immediately contact the permittee in order to explore the possibility of making modifications to the stack test schedule. The required number of copies of the compliance test results shall be submitted to the Division within forty-five (45) calendar days of the completion of the test unless a longer period is approved by the Division.

2.2 Natural gas consumption **for all engines** is limited to 304.05 MMscf/yr (Colorado Construction Permits 12BA485-1 thru -3, as modified under the provisions of Section I, Condition 1.3 to increase the fuel consumption rate as indicated on the APEN submitted March 22, 2007). Natural gas use shall be recorded monthly using the common fuel meter for units E001 – E005. Natural gas consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

2.3 The Btu content of the natural gas used to fuel these engines shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and the appropriate ASTM Methods or equivalent, if approved in advance by the Division, to calculate the Btu content. The Btu content of the gas shall be calculated for January and July, using the average composition of the gas as determined by the in-line gas chromatograph for those months. The Btu content of the natural gas shall be based on the lower heating value of the fuel.

If sampling is conducted, calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis. If the gas chromatograph data is used, calculations of monthly emissions for January through June shall be made using the January average Btu content and calculations of monthly emissions for July through December shall be made using the July average Btu content.

2.4 Hours of Operation **for each engine** will be monitored monthly and recorded and maintained to be available to the Division on request. Hours of operation shall be used to allocate natural gas use as indicated in Condition 2.2 and to assess compliance with the hourly emission limitations as required by Condition 2.1.1.

2.5 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). The

opacity standard applies **to each engine**. In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for these engines.

2.6 **These engines** are subject to the Compliance Assurance Monitoring (CAM) requirements with respect to the NO_X and CO emission limitations in Condition 2.1. Compliance with the CAM requirements shall be monitored in accordance with the requirements in Condition 8 and the CAM Plan in Appendix G.

2.7 The air-to-fuel ratio controller (AFRC) millivolt reading shall be monitored and recorded monthly to assess the AFRC operating condition. During those months when portable monitoring is scheduled, the millivolt reading shall be monitored and recorded during the portable monitoring event. Recording of the millivolt reading shall be used to verify that the AFRC is operated in accordance with the manufacturer's recommendations.

2.8 The oxygen concentration in the engine exhaust gas shall be measured and recorded **for each engine** during each portable monitoring event required by Condition 2.1.2.

2.9 The engines shall not be operated without the catalysts (Compliance Order on Consent, No. 2002-093, February 17, 2004, Section III.9). The engines and catalysts shall be operated and maintained in accordance with the manufacturer's recommendations and good engineering practices.

2.10 These engines are subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as set forth in Condition 10 of this permit.

3. S005 - Superior 4-Cycle Low NO_X ICE, Model 8STB

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
NO_X	3.1		21.7 tpy	0.46 lb/MMBtu	Recordkeeping, Calculation	Monthly
CO			56.5 tpy	1.19 lb/MMBtu		
VOC			13.0 tpy	0.28 lb/MMBtu	Portable Flue Gas Analyzer	Quarterly
Natural Gas Consumption	3.2		109 MMscf/yr		Fuel Meter	Monthly
Heat Content	3.3				ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Hours of Operation	3.4				Recordkeeping	Monthly
Opacity	3.5	Not to exceed 20%			Fuel Restriction	Only Natural Gas is Used as Fuel
MACT Subpart ZZZZ Requirements	3.6	Change Oil and Filter Inspect Spark Plugs Inspect all Hoses and Belts			See Condition 3.6.	

3.1 Emissions of Nitrogen Oxide, Carbon Monoxide and Volatile Organic Compound emissions shall not exceed the limitations stated above (Colorado Construction Permit 92BA348, as modified under the provisions of Section I, Condition 1.3). Compliance with the emission limitations shall be monitored as follows:

3.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 7,200 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from this engine as follows:

Monthly emissions shall be calculated by the end of the subsequent month using the above emission factors, the monthly natural gas consumption and the lower heating value of the fuel, as specified in Condition 3.3, in the equation below:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMBtu)}] \times [\text{Natural Gas Use (MMscf/month)}] \times [\text{Heat Content of Fuel (MMBtu/MMscf)}]}{2000 \text{ lbs/ton}}$$

A twelve-month rolling total of emissions shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If the results of the portable analyzer testing conducted under the provisions of Condition 3.1.2 show that either the NO_X or CO emission rates/factors are greater

than the emission rates/factors listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test.

3.1.2 Portable Monitoring shall be conducted quarterly in accordance with the requirements in Condition 7.

3.2 Natural gas consumption shall not exceed 109 MMscf/yr (Colorado Construction Permit 92BA348, as modified under the provisions of Section I, Condition 1.3). Natural gas use shall be recorded monthly using the common fuel meter for units E001 – E005. Natural gas consumption for each engine shall be allocated according to size, hours of operation and other records as necessary and recorded in a log to be made available to the Division upon request. A twelve month rolling total shall be maintained to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

3.3 The Btu content of the natural gas used to fuel this engine shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and the appropriate ASTM Methods or equivalent, if approved in advance by the Division, to calculate the Btu content. The Btu content of the gas shall be calculated for January and July, using the average composition of the gas as determined by the in-line gas chromatograph for those months. The Btu content of the natural gas shall be based on the lower heating value of the fuel.

If sampling is conducted, calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis. If the gas chromatograph data is used, calculations of monthly emissions for January through June shall be made using the January average Btu content and calculations of monthly emissions for July through December shall be made using the July average Btu content.

3.4 Hours of Operation will be monitored monthly and recorded and maintained to be available to the Division on request. Hours of operation shall be used to allocate natural gas use as indicated in Condition 3.2.

3.5 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed whenever natural gas is used as fuel for this engine.

3.6 This engine is subject to the requirements in 40 CFR Part 63 Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines", as set forth in Condition 10 of this permit.

4. S006 and S007 - Olman Triethylene Glycol Dehydrators, Serial Nos. 41825 and 41826

Parameter	Permit Condition Number	Limitations for **each** dehydrator		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
VOC	4.1.		11.4 tpy	Based on Input to GLYCALC Version 4 or higher	Parametric	As Defined
Extended Gas Analysis					ASTM Methods	
Natural Gas Processed	4.2.		2,250 MMscf/yr		Flow Meter	Monthly
Hours of Operation	4.3.		3,600 hr/yr		Recordkeeping	Monthly

4.1 Volatile Organic Compounds emissions **for each dehydrator** shall not exceed the limitation stated above (Colorado Construction Permits 95BA518-1 and -2, as modified under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Section II.A.6 and Part C, Section X, based on the APEN submitted on 9/16/08). Compliance with the VOC emission limit shall be based on the following monitoring method using the comparison criteria (from Worst Case Dehydrator Emissions - Submitted 7/1/08 by CIG) stipulated below:

Parameter	Value	Units	Criteria	Frequency
Inlet gas temperature	80	ºF	At or Above	Daily
Glycol recirculation rate	1.6	gal/min	At or Below	Twice per week
Benzene	40	ppm	At or Below	Twice per withdrawal period
Toluene	20	ppm	At or Below	Twice per withdrawal period
Ethyl benzene	20	ppm	At or Below	Twice per withdrawal period
Xylene	20	ppm	At or Below	Twice per withdrawal period

4.1.1 The inlet (wet) gas temperature **for each unit** shall be measured and recorded daily. If any daily inlet gas temperature for the month does not meet the comparison criteria, an average value for inlet gas temperature shall be calculated for the month. The circumstances surrounding the failure to measure and record on any day for the inlet gas temperature shall be described in a log maintained on site. Data from the last day for which data exists will be substituted for the missing values for purposes of calculating the monthly average. No data substitution is necessary for days on which the units did not operate.

4.1.2 The triethylene glycol recirculation rate **for each unit** shall be measured and recorded twice per week.

4.1.3 An extended natural gas analysis of the processed wet gas will be conducted twice per withdrawal period, utilizing ASTM standards or equivalent. The two required analyses shall be conducted not less than one month apart. Annual analysis will be acceptable thereafter, provided the BTEX concentrations meet the comparison criteria. Frequency will revert back to twice per withdrawal period if any of the BTEX constituents exceed the listed values.

4.1.4 If either a monthly average inlet gas temperature, glycol recirculation rate on any day monitored, or a concentration for a BTEX constituent does not meet the comparison criteria (beginning with the month in which the gas sample was taken which indicates the exceedance and ending in the month in which a gas sample is taken that indicates no exceedance), the GRI GLYCALC (version 4.0 or higher) model shall be used to determine the monthly VOC emission rate, unless the unit has been operated for 240 hours or less. Inputs into the model shall be the value of the exceeded parameter, the monthly average value for the parameter not in exceedance, the BTEX concentrations from the latest extended gas analysis, and the following assumed values (Worst Case Dehydrator Emissions - Submitted 9/16/08 by CIG):

Inlet Gas Pressure:	600 psig
Natural Gas Throughput:	15 MMscf/day
Gas Injection Pump Volume Ratio:	0.08 acfm gas/gpm glycol

GLYCALC model runs shall be completed by the end of the subsequent month.

4.1.5 A rolling twelve month total of VOC emissions shall be maintained **for each unit** to monitor compliance with the annual VOC limit. For any twelve month period for which no GLYCALC runs were triggered and the twelve month rolling total for hours of operation is in compliance with the annual hours of operation limit, the twelve month rolling total of VOC emissions may be assumed to be equal to the annual VOC limit. The calculation of the twelve month rolling total of VOC emissions shall be performed for any month a GLYCALC run is triggered. The monthly VOC emissions used in the rolling twelve month total for months that do not trigger a GLYCALC run shall be the number of hours the unit operated in the month multiplied by an hourly VOC emission rate of 6.32 lbs/hr (Worst Case Dehydrator Emissions - Submitted 9/16/08 by CIG). If the twelve month rolling total of VOC emissions exceeds the annual VOC limit, VOC emissions for the previous months must be calculated with GLYCALC using the parameters described in Condition 4.1.4 until the rolling twelve month total is less than the annual VOC limitation.

4.2 The quantity of gas processed by **each** glycol dehydration unit shall not exceed the limitations listed above (Colorado Construction Permits 95BA518-1 and -2, as modified under the provisions of Section I, Condition 1.3, based on the requested throughput indicated on the APEN submitted 2/25/98). The gas throughput to the dehydration unit shall be monitored using existing

flow meters and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total will be maintained to monitor compliance with annual limitations.

4.3 Hours of Operation for **each** unit shall not exceed the limitations listed above (Colorado Construction Permits 95BA518-1 and -2, as modified under the provisions of Section I, Condition 1.3, based on the hours of operation used to estimate the requested throughput indicated on the APEN submitted 2/25/98). Hours of Operation shall be monitored and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total will be maintained to monitor compliance with annual limitations.

5. S008 - Olman Heath Triethylene Glycol Dehydrator Equipped with Glycol-Cooled Condenser, Serial No. 296110

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
VOC	5.1.		37.9 tpy	Based on Input to GLYCALC Version 4 or higher	Parametric	As Defined
Extended Gas Analysis					ASTM Methods	
Natural Gas Processed	5.2.		15,750 MMscf/yr		Flow Meter	Monthly
Hours of Operation	5.3.		2,800 hr/yr		Recordkeeping	Monthly
Flash Tank Requirements	5.4.				Certification	Annually
Compliance Assurance Monitoring	5.5.				See Condition 5.5.	
Condenser Operating Requirements	5.6.				See Condition 5.6	
Automatic Fan Cut-off Requirements	5.7.				See Condition 5.7	

5.1 Volatile Organic Compounds emissions for the dehydrator shall not exceed the limitation stated above (Colorado Construction Permit 12BA485-5, as modified (per Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG) under the provisions of Section I, Condition 1.3). Compliance with the VOC emission limit shall be based on the following monitoring method using the comparison criteria (Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG) stipulated below:

Parameter	Value	Units	Criteria	Frequency
Inlet gas temperature	80	ºF	At or Above	Daily
Benzene	40	ppm	At or Below	Twice per withdrawal period
Toluene	20	ppm	At or Below	Twice per withdrawal period
Ethyl benzene	20	ppm	At or Below	Twice per withdrawal period
Xylene	20	ppm	At or Below	Twice per withdrawal period

5.1.1 The inlet (wet) gas temperature for this unit shall be measured and recorded daily. If any daily inlet gas temperature for the month does not meet the comparison criteria, an average value for inlet gas temperature shall be calculated for the month. The circumstances surrounding the failure to measure and record on any day for the inlet gas temperature shall be described in a log maintained on site. Data from the last day for which data exists will be substituted for the missing values for purposes of calculating the monthly average. No data substitution is necessary for days on which the unit did not operate.

5.1.2 The temperature at the outlet of the condenser shall be measured and recorded daily as required by the CAM Plan in Appendix H of this permit.

5.1.3 An extended natural gas analysis of the processed wet gas will be conducted twice per withdrawal period, utilizing ASTM standards or equivalent. The two required analyses shall be conducted not less than one month apart. Annual analysis will be acceptable thereafter, provided the BTEX concentrations meet the comparison criteria. Frequency will revert back to twice per withdrawal period if any of the BTEX constituents exceed the listed values.

5.1.4 If either a monthly average inlet gas temperature, the monthly average outlet condenser temperature or a concentration for a BTEX constituent does not meet the comparison criteria (beginning with the month in which the gas sample was taken which indicates the exceedance and ending in the month in which a gas sample is taken that indicates no exceedance), the GRI GLYCALC (version 4.0 or higher) model shall be used to determine the monthly VOC emission rate, unless the unit has been operated for 240 hours or less. Inputs into the model shall be the value of the exceeded parameter, the monthly average value for the parameter not in exceedance, the BTEX concentrations from the latest extended gas analysis, and the following assumed values (Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG):

Inlet Gas Pressure:	600 psig
Natural Gas Throughput:	135 MMscf/day
Glycol Recirculation Rate:	35 gal/min

GLYCALC model runs shall be completed by the end of the subsequent month.

5.1.5 A rolling twelve month total of VOC emissions shall be maintained for the unit to monitor compliance with the annual VOC limit. For any twelve month period for which no GLYCALC runs were triggered and the twelve month rolling total for hours of operation is in compliance with the annual hours of operation limit, the twelve month rolling total of VOC emissions may be assumed to be equal to the annual VOC limit. The calculation of the twelve month rolling total of VOC emissions shall be performed for any month a GLYCALC run is triggered. The monthly VOC emissions used in the rolling twelve month total for months that do not trigger a GLYCALC run shall be the number of hours the unit operated in the month multiplied by an hourly VOC emission rate of 27.05 lb/hr (Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG). If the twelve month rolling total of VOC emissions exceeds the annual VOC limit, VOC emissions for the previous months must be calculated with GLYCALC using the parameters described in Condition 5.1.4 until the rolling twelve month total is in compliance with the annual VOC limitation.

5.2 The quantity of gas processed by the glycol dehydration unit shall not exceed the limitations listed above (Colorado Construction Permit 12BA485-5, as modified (per Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG) under the provisions of Section I, Condition 1.3. The gas throughput to the dehydration unit shall be monitored using existing flow meters and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total will be maintained to monitor compliance with annual limitations.

5.3 Hours of Operation for the unit shall not exceed the limitations listed above (Colorado Construction Permit 12BA485-5, as modified (per Worst Case Dehydrator Emissions - Submitted 07/21/99 by CIG) under the provisions of Section I, Condition 1.3). Hours of Operation shall be monitored and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total will be maintained to monitor compliance with annual limitations.

5.4 Emissions from the dehydrator flash tank shall be routed through a closed vent system to the reboiler for use as fuel.

5.5 This unit is subject to the Compliance Assurance Monitoring (CAM) requirements with respect to the VOC emission limitations in Condition 5.1. Compliance with the CAM requirements shall be monitored in accordance with the requirements in Condition 8 and the CAM Plan in Appendix H.

5.6 The triethylene glycol dehydrator shall not be operated without the glycol-cooled condenser (Compliance Order on Consent, dated August 30, 2002, paragraph VI.23).

5.7 The automatic fan cut-off on equipment up-stream of the gas-glycol contact tower shall be operated at all times the glycol dehydrator is operated. The automatic fan cut-off equipment is designed to prevent the over-cooling of the gas stream. If the equipment fails to prevent the over-cooling of the gas, the permittee shall immediately notify the Division in writing with a

proposal and implementation schedule for the taking of other measures to prevent the over-cooling of the gas (Compliance Order on Consent, dated August 30, 2002, paragraph VI.24).

6. S009 - Olman Heath Triethylene Glycol Dehydrator, Serial No. 1279P

Parameter	Permit Condition Number	Limitations Short Term	Limitations Long Term	Compliance Emission Factor	Monitoring Method	Monitoring Interval
VOC	6.1		1.8 tpy	Based on Input to GLYCALC Version 4 or higher	Parametric	As Defined
Extended Gas Analysis					ASTM Methods	
Natural Gas Processed	6.2		6,570 MMscf/yr		Flow Meter	Monthly
Hours of Operation	6.3				Recordkeeping	Monthly
Dehydrator Regenerator and Flash Tank Requirements	6.4	Control VOC Emissions by 90%			See Condition 6.4	
Flare Requirements	6.5	Operate and Maintain in Accordance with Manufacturer's Specifications			Certification	Annually
		Visible Emissions/Opacity Requirements			Visible Emissions Observation	Monthly
		Flare Shall be Operating at All Times Emissions are Vented to it			Certification	Annually
		A Flame Shall be Present at All Times the Flare is Operated			Temperature Sensor of Flame Detection Device with Alarm	Continuously
MACT Subpart HH Requirements	6.6	Actual Annual Benzene Emissions Shall Not Exceed 0.9 megagrams per year (1,984 lbs/yr)			See Condition 6.6	Annually

6.1 Volatile Organic Compounds emissions for the dehydrator shall not exceed the limitation stated above (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Sections I.A.7 and III.B.7, based on requested emissions indicated on the APEN submitted July 6, 2009). Compliance with the VOC emission limit shall be based on the following monitoring method using the comparison criteria (Worst Case Dehydrator Emissions - Submitted 7/6/09) stipulated below:

Parameter	Value	Units	Criteria	Frequency
Inlet gas temperature	70	ºF	At or Above	Daily
Glycol recirculation rate	1.6	gal/min	At or Below	Twice per week
Benzene	40	ppm	At or Below	Semi-Annually
Toluene	60	ppm	At or Below	Semi-Annually
Ethyl benzene	10	ppm	At or Below	Semi-Annually
Xylene	10	ppm	At or Below	Semi-Annually

6.1.1 The inlet (wet) gas temperature for this unit shall be measured and recorded daily. If any daily inlet gas temperature for the month does not meet the comparison criteria, an average value for inlet gas temperature shall be calculated for the month. The circumstances surrounding the failure to measure and record on any day for the inlet gas temperature shall be described in a log maintained on site. Data from the last day for which data exists will be substituted for the missing values for purposes of calculating the monthly average. No data substitution is necessary for days on which the unit did not operate.

6.1.2 The triethylene glycol recirculation rate for this unit shall be measured and recorded twice per week.

6.1.3 An extended natural gas analysis of the processed wet gas will be conducted on a semi-annual basis, utilizing ASTM standards or equivalent. Required analyses shall be conducted not less than two months apart.

6.1.4 If either a monthly average inlet gas temperature, a glycol recirculation rate on any day monitored, or a concentration for a BTEX constituent does not meet the comparison criteria (beginning with the month in which the gas sample was taken which indicates the exceedance and ending in the month in which a gas sample is taken that indicates no exceedance), the GRI GLYCALC (version 4.0 or higher) model shall be used to determine the monthly VOC emission rate, unless the unit has been operated for 240 hours or less. Inputs into the model shall be the value of the exceeded parameter, the monthly average value for the parameter not in exceedance, the BTEX concentrations from the latest extended gas analysis, and the following assumed values (Worst Case Dehydrator Emissions - Submitted 7/6/09 by CIG):

Inlet (Wet) Gas Pressure:	725 psig
Natural Gas Throughput:	18 MMscf/day
Flash Tank Pressure:	30 psig
Flash Tank Temperature	180 °F

GLYCALC model runs shall be completed by the end of the subsequent month.

6.1.5 A rolling twelve month total of VOC emissions shall be maintained for the unit to monitor compliance with the annual VOC limit. For any twelve month period for which no GLYCALC runs were triggered and there were no uncontrolled emissions from the dehydrator due to flare downtime, the twelve month rolling total of VOC emissions may be assumed to be equal to the annual VOC limit.

The calculation of the twelve month rolling total of VOC emissions shall be performed for any month a GLYCALC run is triggered or when there are uncontrolled emissions from the dehydrator due to flare downtime. Monthly emissions shall be calculated as follows:

6.1.5.1 If a GLYCALC run is required for any reason for a given month, the pounds per hour of emissions predicted by the model shall be multiplied by the number of hours the unit ran for that month to determine monthly VOC emissions.

6.1.5.2 The monthly VOC emissions used in the rolling twelve month total for months that do not trigger a GLYCALC run shall be the number of hours the unit operated in the month multiplied by an hourly VOC emission rate of 0.41 lbs/hr (Worst Case Dehydrator Emissions - Submitted 7/6/09 by CIG, assumes 95% control for flare).

6.1.5.3 For months in which there are uncontrolled emissions from the dehydrator due to flare downtime, monthly emissions shall be the number of hours the unit operated with the flare multiplied by the an hourly VOC emission rate of 0.41 lbs/hr (Worst Case Dehydrator Emissions - Submitted 7/6/09 by CIG, assumes 95% control for flare) or the VOC emission rate (lbs/hr) predicted by the GLYCalc run plus estimated uncontrolled emissions for the month as required by Condition 6.5.5.

If the twelve month rolling total of VOC emissions exceeds the annual VOC limit, VOC emissions for the previous months must be calculated with GLYCALC using the parameters described in Condition 6.1.4 until the rolling twelve month total is in compliance with the annual VOC limitation.

6.2 The quantity of gas processed by the glycol dehydration unit shall not exceed the limitations listed above (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part C, Sections I.A.7 and III.B.7, based on APEN submitted July 6, 2009). The gas throughput to the dehydration unit shall be monitored using existing flow meters and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total will be maintained to monitor compliance with annual limitations.

6.3 Hours of Operation shall be monitored and recorded monthly in a log that is to be made available to the Division upon request. Hours of operation shall be used to calculate monthly emissions to be used in a rolling twelve month total as specified in Condition 6.1.5.

6.4 **State-only Requirement:** Beginning May 1, 2008, any still vent and vent from any gas-condensate-glycol (GCG) separator (flash separator or flash tank), if present, on a glycol natural gas dehydrator located at an oil and gas exploration and production operation, natural gas compressor station, drip station or gas-processing plant shall reduce uncontrolled actual emissions of volatile organic compounds by an average of at least 90 percent through the use of air pollution control equipment (Colorado Regulation No. 7, Section XVII.D). Compliance with this requirement shall be met as follows:

6.4.1 Still vent emissions shall be routed through a closed vent system to a flare equipped with a wind shroud prior to being emitted.

6.4.2 Emissions from the flash tank shall be routed through a closed vent system to the common fuel manifold for use as fuel in any of the fired equipment at the station.

In the absence of credible evidence to the contrary, compliance with the above requirements is presumed provided the requirements in Condition 6.5 are met.

6.5 The flare is subject to the following requirements:

6.5.1 **State-only Requirement:** All air pollution control equipment required by Condition 6.4 shall be operated and maintained pursuant to manufacturer specifications or equivalent to the extent practicable, and consistent with technological limitations and good engineering and maintenance practices. The owner or operator shall keep manufacturer specifications or equivalent on file. In addition, all such air pollution control equipment shall be adequately designed and sized to achieve the control efficiency rates required by Condition 6.4 and to handle reasonably foreseeable fluctuations in emissions of volatile organic compounds during normal operations. Fluctuations in emissions that occur when the separator dumps into the tank are reasonably foreseeable. (Colorado Regulation No. 7, Section XVII.B1.a)

6.5.2 **State-only Requirement:** If a flare or other combustion device is used to control emissions of volatile organic compounds to comply with Condition 6.4, it shall be enclosed, have no visible emissions during normal operations, and be designed so than an observer can, by means of visual observation from the outside of the enclosed flare or combustion device, or by other convenient means approved by the Division, determine whether it is operating properly. (Colorado Regulation No. 7, Section XVII.B.1.c)

6.5.3 No owner or operator of a smokeless flare or other flare for the combustion of waste gases shall allow or cause emissions into the atmosphere of any air pollutant which is in excess of 30% opacity for a period or periods aggregating more than six minutes in any sixty consecutive minutes. (Colorado Regulation No. 1, Section II.A.5)

6.5.4 The flare shall be operated at all times emissions may be vented to it. (As provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Sections II.A.6 and III.E and Part C, Section X)

6.5.5 The flare shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame. (As provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3, Part B, Sections II.A.6 and III.E and Part C, Section X) The device shall be equipped with an alarm to indicate no ignition of the pilot flame. Records of the times and duration of all periods of pilot flame outages and estimated emissions from the dehydrator shall be maintained and made available to the Division upon request. Estimated emissions from the glycol dehydrator shall assume 0% control and shall be used as specified in Condition 6.1.5 to monitor compliance with the VOC emission limitation in Condition 6.1.

Compliance with the flare visible emissions requirements in Conditions 6.5.2 and 6.5.3 shall be monitored as follows:

6.5.6 A visible emission observation shall be conducted monthly when the dehydrator and flare are operating to qualitatively assess whether visible emissions are present. Monthly observations shall last a minimum of five minutes. If no visible emissions are present during this observation, in the absence of credible evidence to the contrary, the flare will be considered to be in compliance with the visible emission requirements in Conditions 6.5.2 and 6.5.3.

6.5.7 If visible emissions are present during the monthly reading, actions shall be taken to reduce visible emissions to zero as soon as possible. If visible emissions persist the flare shall be deemed out of compliance with the visible emissions requirement in Condition 6.5.2. Subject to the provisions of C.R.S. § 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the visible emission requirements shall be considered to exist from the time a visible emission observations it taken that shows the flare is out of compliance (as defined above) until a visible emission observation is taken that shows the flare is in compliance (as defined above) or the dehydrator and flare are shut down.

6.5.8 Compliance with the opacity standard in Condition 6.5.3 shall, in the absence of credible evidence to the contrary, be presumed provided the requirements in Conditions 6.5.6 and 6.5.7 (with the following exception) are met. For purposes of monitoring compliance with the opacity requirement in Condition 6.5.3, if visible emissions persist per Condition 6.5.7, a Method 9 opacity observation shall be conducted to determine whether the flare is in compliance with the opacity requirement in Condition 6.5.3. Such opacity observations shall be performed by an observer with current and valid Method 9 certification. Results of Method 9 readings

and a copy of the certified Method 9 reader's certification shall be kept on site and made available to the Division upon request.

6.6 The glycol dehydration unit is subject to the provisions in 40 CFR Part 63 Subpart HH, "National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities", as adopted by reference in Colorado Regulation No. 8, Part E, Section III. Specifically, the following requirements apply to this emission unit:

6.6.1 The owner or operator of an area source is exempt from the requirements of paragraph (d) of § 63.764 if either of the following criteria is met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1). (§ 63.764(e)(1))

6.6.1.1 The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day (3.0 MMscf/day), as determined by the procedures specified in Condition 6.6.2 (§ 63.764(e)(1)(i)); or

6.6.1.2 The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1,984 lbs/yr), as determined by the procedures specified in Condition 6.6.2. (§ 63.764(e)(1)(ii))

6.6.2 *Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions. *Determination of glycol dehydration unit flowrate or benzene emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate or benzene emissions to meet the criteria for an exemption from control requirements under § 63.764(e)(1). (§ 63.772(b))

6.6.2.1 The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either Conditions 6.6.2.1.a or 6.6.2.1.b. (§ 63.772(b)(1))

a. The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas. (§ 63.772(b)(1)(i)) OR

b. The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit. (§ 63.772(b)(1)(ii))

6.6.2.2 The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either 6.6.2.2.a or 6.6.2.2.b. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place. (§ 63.772(b)(2))

a. The owner or operator shall determine actual average benzene or BTEX emissions using the model GRI–GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI–GLYCalc™Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions" (GRI–95/0368.1). (§ 63.772(b)(2)(i)) OR

b. The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year. (§ 63.772(b)(2)(ii))

6.6.3 An owner or operator of a glycol dehydration unit that meets the exemption criteria in Condition 6.6.1 shall maintain the records specified in Condition 6.6.3.1 or 6.6.3.2, as appropriate, for that glycol dehydration unit. (§ 63.774(d)(1))

6.6.3.1 The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with Condition 6.6.2.1 (§ 63.774(d)(1)(i)), OR

6.6.3.2 The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with Condition 6.6.2.2. (§ 63.774(d)(1)(i))

7. Portable Monitoring (6/26/14 version)

Emission measurements of nitrogen oxides (NO_X) and carbon monoxide (CO) from each engine shall be conducted quarterly using a portable flue gas analyzer. At least one calendar month shall separate the quarterly tests**.** Note that if an engine is operated for less than 100 hrs in any quarterly period, then the portable monitoring requirements do not apply to that engine.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's website at: https://www.colorado.gov/pacific/cdphe/portable-analyzer-monitoring-protocol

Results of the portable analyzer tests shall be used to monitor the compliance status of these units. For comparison with the hourly emission limitations, the results of the tests shall be converted to lb/MMBtu in order to monitor compliance with the hourly emission limitations. For comparison with an annual or short term (monthly) emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable analyzer results indicate compliance with both the NO_X and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the NO_X and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the NO_X or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the NO_X and CO emission limitations or until the engine is taken offline.

For comparison with the emission rates/factors, the emission rates/factors determined by the portable analyzer tests and approved by the Division shall be converted to the same units as the emission rates/factors in the permit. If the portable analyzer tests shows that either the NO_X or CO emission rates/factors are greater than the relevant ones set forth in the permit, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rate/factor within 60 days of the completion of the test.

Results of all tests conducted shall be kept on site and made available to the Division upon request**.**

8. Compliance Assurance Monitoring (CAM) Requirements

8.1 The Compliance Assurance Monitoring (CAM) requirements in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV, apply to Units S002 through S0004 as indicated in Condition 2.6 and to Unit S008 as indicated in Condition 5.5, as follows:

8.1.1 Excursions, for purposes of reporting are as follows:

8.1.1.1 **For Units S002 – S004:** The permittee shall follow the CAM Plan provided in Appendix G and excursions for purposes of reporting are as follows:

a. Any monthly pressure drop across the catalyst that is not within + 2/-5 inches of water from the pressure drop recorded by the performance test in Condition 2.1.3. Minimum allowable pressure drop shall be 1 inch of water; or

The pressure drop readings, in inches of water, from the performance

test required by Condition 2.1.3 are as follows: S002/E002 – 2.90, S003/E003 – 2.46 and S004/E004 – 3.03 (all from October 2014 tests).

b. Any daily engine exhaust (catalyst inlet) temperature reading that is less than 750 º F or greater than 1250 º F; or

c. Any time the alarm sounds indicating that the catalyst inlet temperature is approaching the indicator range (less than 750 º F or greater than 1250 º F).

8.1.1.2 **For Unit S008:** The permittee shall follow the CAM Plan provided in Appendix H and excursions for purposes of reporting are as follows:

a. Any day when the recorded condenser outlet temperature exceeds 100 º F.

Excursions shall be reported as required by Section IV, Conditions 21 and 22.d of this permit.

8.1.2 Operation of Approved Monitoring

8.1.2.1 At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment (40 CFR Part 64 § 64.7(b), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.2.2 Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of these CAM requirements, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions (40 CFR Part 64 § 64.7(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.2.3 Response to excursions or exceedances

a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its

normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable (40 CFR Part 64 § 64.7(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Determination of whether the owner of operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process (40 CFR Part 64 § 64.7(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.2.4 After approval of the monitoring required under the CAM requirements, if the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the Division and, if necessary submit a proposed modification for this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters (40 CFR Part 64 § 64.7(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3 Quality Improvement Plan (QIP) Requirements

8.1.3.1 Based on the results of a determination made under the provisions of Condition 8.1.2.3.b, the Division may require the owner or operator to develop and implement a QIP (40 CFR Part 64 § 64.8(a), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3.2 The owner or operator shall maintain a written QIP, if required, and have it available for inspection (40 CFR Part 64 § 64.8(b)(1), as adopted by

reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3.3 The QIP initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

a. Improved preventative maintenance practices (40 CFR Part 64 § 64.8(b)(2)(i), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Process operation changes (40 CFR Part 64 § 64.8(b)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

c. Appropriate improvements to control methods (40 CFR Part 64 § 64.8(b)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

d. Other steps appropriate to correct control performance (40 CFR Part 64 § 64.8(b)(2)(iv), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

e. More frequent or improved monitoring (only in conjunction with one or more steps under Conditions 8.1.3.3.a through d above) (40 CFR Part 64 § 64.8(b)(2)(v), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3.4 If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the Division if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined (40 CFR Part 64 § 64.8(c), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3.5 Following implementation of a QIP, upon any subsequent determination pursuant to Condition 8.1.2.3.b, the Division or the U.S. EPA may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

a. Failed to address the cause of the control device performance problems (40 CFR Part 64 § 64.8(d)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); or

b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions (40 CFR Part 64 § 64.8(d)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.3.6 Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act (40 CFR Part 64 § 64.8(e), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.4 Reporting and Recordkeeping Requirements

8.1.4.1 Reporting Requirements: The reports required by Section IV, Condition 22.d, shall contain the information specified in Appendix B of the permit and the following information, as applicable:

a. Summary information on the number, duration and cause (including unknown cause, if applicable), for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable) ((40 CFR Part 64 § 64.9(a)(2)(ii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV); and

b. The owner or operator shall submit, if necessary, a description of the actions taken to implement a QIP during the reporting period as specified in Condition 8.1.3 of this permit. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring (40 CFR Part 64 § 64.9(a)(2)(iii), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.4.2 General Recordkeeping Requirements: In addition to the recordkeeping requirements in Section IV, Condition 22.a through c.

a. The owner or operator shall maintain records of any written QIP required pursuant to Condition 8.1.3 and any activities undertaken to implement a QIP, and any supporting information required to be maintained under these CAM requirements (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions) (40 CFR Part 64 § 64.9(b)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements (40 CFR Part 64 §

64.9(b)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.5 Savings Provisions

8.1.5.1 Nothing in these CAM requirements shall excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the federal clean air act. These CAM requirements shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purposes of determining the monitoring to be imposed under separate authority under the federal clean air act, including monitoring in permits issued pursuant to title I of the federal clean air act. The purpose of the CAM requirements is to require, as part of the issuance of this Title V operating permit, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of CAM (40 CFR Part 64 § 64.10(a)(1), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.5.2 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to impose additional or more stringent monitoring, recordkeeping, testing or reporting requirements on any owner or operator of a source under any provision of the federal clean air act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

8.1.5.3 Nothing in these CAM requirements shall restrict or abrogate the authority of the U.S. EPA or the Division to take any enforcement action under the federal clean air act for any violation of an applicable requirement or of any person to take action under section 304 of the federal clean air act (40 CFR Part 64 § 64.10(a)(2), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

9. B001 and H001 - Peerless Boiler Rated at 1.68 MMBtu/hr and Gas In-Line Heater Rated at 4 MMBtu/hr

Parameter	Permit Condition Number	Limitations for **each** dehydrator		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
NO_X – **B001 Only**	9.1.	0.19 lbs/hr			Fuel Restriction	Only Natural Gas is Used as Fuel
Particulate Matter (PM)	9.2.	B001 – 0.45 lb/MMBtu H001 - 0.35 lb/MMBtu				
Opacity	9.3	Not to Exceed 20%				
MACT Requirements – 40 CFR Part 63 Subpart DDDDD	9.4	Tune-Ups Every Five Years One Time Facility Energy Assessment-			See Condition 9.4.	

Note that these emission units are exempt from the APEN reporting requirements in Regulation No. 3, Part A and the construction permit requirements in Regulation No. 3, Part B.

9.1 Nitrogen Oxide (NO_X) emissions from the water-heating boiler (formerly addressed in Colorado Construction Permit C12,485-4) shall not exceed 0.19 lb/hr (EPA PSD permit). In the absence of credible evidence to the contrary, compliance with the NO_X limitation shall be presumed provided natural gas is used as fuel in the boiler. The permittee shall maintain records that verify that only natural gas is used as fuel in this boiler.

Note that this presumption is based on natural gas having a heat content of no less than 789.5 Btu/SCF.

9.2 Particulate Matter (PM) emissions from the boiler and heater shall not exceed the above limitation (Colorado Regulation No. 1, Section III.A.1.b). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limits is presumed since only natural gas and is permitted to be used as fuel for the boiler and heater. The permittee shall maintain records that verify that only natural gas is used as fuel in the boiler and heater.

Note that the numeric PM standards were determined using the design heat input rates for the boiler (1.5 MMBtu/hr) and heater (4.0 MMBtu/hr) in the following equation:

$PE = 0.5 \times (FI)^{-0.26,}$ where: PE = particulate standard in lbs/MMBtu
FI = fuel input in MMBtu/hr

9.3 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity requirement will

be presumed since only natural gas is permitted to be used as fuel for the boiler and heater. The permittee shall maintain records that verify that only natural gas is used as fuel in the boiler and heater.

9.4 These emission units are subject to the National Emissions Standards for Hazardous air pollutants from Industrial, Commercial and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD. Specifically, these emission units are subject to the following requirements:

The requirements below reflect the current rule language as of the revisions to 40 CFR Part 63 Subpart DDDDD published in the Federal Register on January 31, 2013. However, if revisions to this Subpart are published at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 63, Subpart DDDDD.

When do I have to comply with this subpart? (63.7495)

9.4.1 If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i). (63.7495(b))

9.4.2 You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart. (63.7495(d))

What emission limitations, work practice standards, and operating limits must I meet? (63.7500)

9.4.3 You must meet the requirements in § 63.7500(a)(1) through (3), except as provided in § 63.7500(b) through (e). You must meet these requirements at all times the affected unit is operating except as provided for in § 63.7500(f). (63.7500(a)). Note that the requirements in § 63.7500(a)(2) do not apply to these units so they have not been included in the permit.

9.4.4 You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. (63.7500(a)(1)) These emission units are existing units and Tables 1 and 11 through 13 are not relevant. These existing emission units are not subject to any emission limits in Table 2. The work practice standards in Table 3 that apply to these units are as follows:

9.4.4.1 For a new or existing boiler or process heater with heat input capacity of less than or equal to 5 million Btu per hour in the gas 1 subcategory you must conduct a tune-up of the boiler or process heater every five years as specified in § 63.7540. (Table 3, item 1)

9.4.4.2 For an existing boiler or process heater located at a major source facility you must have a one-time energy assessment performed on the major source facility by qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a.to e. appropriate for the on-site technical hours listed in § 63.7575. (Table 3, item 4) The energy assessment must include the following:

a. A visual inspection of the boiler or process heater system.

b. An evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.

c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.

d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.

e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.

f. A list of cost-effective energy conservation measures that are within the facility's control.

g. A list of the energy savings potential of the energy conservation measures identified.

h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

9.4.5 At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (63.7500(a)(3))

9.4.6 As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section. (63.7500(b))

9.4.7 Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart. (63.7500(e))

What are my initial compliance requirements and by what date must I conduct them (63.7510)

9.4.8 You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. (63.7510(e))

9.4.9 For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495. (63.7510(j))

When must I conduct subsequent performance tests, fuel analyses, or tune-ups? (63.7515)

9.4.10 If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months,

respectively, after the initial startup of the new or reconstructed affected source. (63.7515(d))

9.4.11 You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. (63.7515(g))

How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards? (63.7530)

9.4.12 If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit. (63.7530(d))

9.4.13 You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment. (63.7530(e))

9.4.14 You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e). (63.7530(f))

How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards? (63.7540)

9.4.15 If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified paragraphs (a)(10)(i) through (vi) of this section (Conditions 9.4.15.1 through 9.4.15.6) to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section (Condition 9.4.15.1) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. (63.7540(a)(12))

9.4.15.1 As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the

storage vessel or process equipment (63.7540(a)(10)(i));

9.4.15.2 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available (63.7540(a)(10)(ii));

9.4.15.3 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection (63.7540(a)(10)(iii));

9.4.15.4 Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject (63.7540(a)(10)(iv));

9.4.15.5 Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer (63.7540(a)(10)(v)); and

9.4.15.6 Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section. (63.7540(a)(10)(vi))

9.4.16 If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. (63.7540(a)(13))

What notifications must I submit and when? (63.7545)

9.4.17 You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. (63.7545(a)) For the units addressed in this permit the required notifications are the initial notification (§ 63.9(b)) and the notification of compliance status.

9.4.18 As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013. (63.7545(b))

9.4.19 If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th

day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8). (63.7545(e)) The Notification of Compliance Status for the affected sources at this facility shall include the information specified in paragraphs (e)(1), (6), (7) and (8).

What reports must I submit and when? (63.7550)

9.4.20 You must submit each report in Table 9 to this subpart that applies to you. (63.7550(a))

9.4.21 For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5- year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semiannual compliance report. (63.7550(b))

9.4.22 If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section. (63.7550(c)(1))

9.4.23 You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator. (63.7550(h)(3))

What records must I keep? (63.7555)

9.4.24 You must keep the following records:

9.4.24.1 A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual [or annual, biennial or every five years, as applicable] compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv). (63.7555(a)(1))

9.4.24.2 Records of performance tests, fuel analyses, or other compliance

demonstrations and performance evaluations as required in § 63.10(b)(2)(viii). (63.7555(a)(2))

In what form and how long must I keep my records? (63.7560)

9.4.25 Records shall be kept in the form and for the duration specified in § 63.7560.

What parts of the General Provisions apply to me? (63.7565)

9.4.26 Table 10 of 40 CFR Part 63 Subpart DDDDD shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. (63.7565) These requirements include but are not limited to the following:

9.4.26.1 Prohibited activities in § 63.4.

9.4.26.2 Notification requirements in § 63.9.

10. Reciprocating Internal Combustion Engine (RICE) MACT Requirements

Engines E001 through E005 are subject to the "National Emissions Standards for Hazardous Air Pollutants for Stationary Internal Combustion Engines" in 40 CFR Part 63 Subpart ZZZZ. These requirements include but are not limited to the following:

The requirements below reflect the current rule language as of the revisions to 40 CFR Part 63 Subpart ZZZZ published in the Federal Register on January 30, 2013 (including the corrections published March 6, 2013). However, if revisions to this Subpart are promulgated at a later date, the owner or operator is subject to the requirements contained in the revised version of 40 CFR Part 63 Subpart ZZZZ.

As of the date of this permit issuance **[DATE]**, the requirements in 40 CFR Part 63 Subpart ZZZZ promulgated after July 1, 2007 have not been adopted into Colorado Regulation No. 8, Part E and are therefore not state-enforceable. In the event that these requirements are adopted into Colorado Regulations, they will become state-enforceable

When do I have to comply with this subpart (§ 60.6595)

10.1 If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013. ((§ 63.6595(a)(1))

What emission limitations, operating limitations and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions? (§ 63.6603)

10.2 If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart that apply to you. (§ 63.6603(a)) The requirements in Table 2d that apply to these engines are as follows:

10.2.1 Change oil and filter every 2,160 hours of operation or annually, whichever comes first. (Subpart ZZZZ, Table 2d, item 8.a (engines E001 and E005) and 11.a (engines E002 – E003))

10.2.2 Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary. (Subpart ZZZZ, Table 2d, item 8.b (engines E001 and E005) and 11.b (engines E002 – E003))

10.2.3 Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary. (Subpart ZZZZ, Table 2d, item 8.b (engines E001 and E005) and 11.b (engines E002 – E003))

Notwithstanding the above requirements, the following applies:

10.2.4 Sources have the option to utilize an oil analysis program as described in Condition 10.7 in order to extend the specified oil change requirement in Table 2d of this subpart. (Subpart ZZZZ, Table 2d, footnote 1)

10.3 An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation. (63.6603(f))

What are my general requirements for complying with this subpart? (§ 63.6605)

10.4 You must be in compliance with the emission limitations, operating limitations and other requirements in this subpart that apply to you at all times. (§ 63.6605(a))

10.5 At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance

procedures, review of operation and maintenance records, and inspection of the source. (§ 63.6605(b))

What are my monitoring, installation, collection, operation, and maintenance requirements? (§ 63.6625)

10.6 If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c and 2d to this subpart apply. (63.6625(h))

10.7 If you own or operate a stationary SI engine that is subject to the work, operation or management practices in Condition 10.2, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Condition 10.2.1. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 10.2.1. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. (63.6625(j))

How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements? (§ 63.6640)

10.8 You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart. (§ 63.6640(a)) The methods specified in Table 6 for these engines are as follows:

10.8.1 Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instruction (Table 6, item 9.a.i), or

10.8.2 Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. (Table 6, item 9a.ii)

Notifications, Reports and Records (§ 63.6645, § 63.6650, § 63.6655, and § 63.6660

10.9 You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart. (63.6655(e) and (e)(3)).

10.10 Records shall be kept in the forms and for the duration specified in § 63.6660.

General Provisions (§ 63.6665)

10.11 Table 8 to this subpart shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. (§ 63.6665) The general provisions that apply to **engines E001 through E005** include, but are not limited to the following:

10.11.1 Prohibited activities in § 63.4(a).

10.11.2 Circumvention in § 63.4(b).

11. Natural Gas Storage Facility Insignificant Activities

Emissions of total hazardous air pollutant (HAP) emissions from the insignificant activities associated with the portions of the facility related natural gas storage operations shall not exceed 1 ton/yr. Compliance with the limitation shall be monitored by conducting a potential to emit (PTE) analysis of HAP emissions from insignificant activities that demonstrates that HAP emissions do not exceed 1.0 tons/yr of total HAPS within sixty (60) days of permit issuance. The analysis shall include HAP emissions from all insignificant activities that have the potential to emit HAPs. Insignificant activities include those units included in the insignificant activity list in Appendix A of the permit and/or any equipment that is exempt from APEN reporting requirements that have the potential to emit HAPs. The analysis, as well as the calculations and any supporting documentation, shall be retained on site and made available to the Division upon request.

The above analysis shall be updated if any new insignificant activities that can potentially emit HAP are added to the natural gas storage operations at this facility.

SECTION III - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D., & XIII.B and § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modification or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Non-Applicable Requirement	Justification
All	Regulation No. 1, Section III - Particulate Emissions	Emission units do not fall under the definition of fuel burning equipment.
All	Regulation No. 1, Section IV - Continuous Monitoring Requirements for New or Existing Sources	Emission units do not fall under the source categories required to perform continuous monitoring.
All	Regulation No. 3, Part D, Section V – Non-attainment areas	Facility is not located in a non-attainment area for any pollutant.
All	Regulation No. 3, Part D, Section XII - Federal Class I Areas	Emission units do not impact Class I areas.
All	Regulation No. 3, Part D, Section XIV - Visibility	Emission units do not impact Class I areas.
All	Regulation No. 6, Part A, - Federal Source Performance Standards, Subpart A - General Provisions	Emission units are not affected sources.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart K, Ka, Kb - Storage Vessels for Petroleum Liquids	No emission units commenced construction after June 11, 1973 that met the applicability provisions of the standards.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart KKK - Equipment leaks of VOC from Onshore Natural Gas Processing Plants	Emission units are not affected sources.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart LLL - SO_2 Emissions from Onshore Natural Gas Processing Plants	Emission units are not affected sources.
All	Regulation No. 8, Part A - NESHAPS, 40 CFR Part 61, Subpart J - Equipment Leaks of Benzene	Emissions are less than 10 weight percent benzene.
All	Regulation No. 8, Part A - NESHAPS, 40 CFR Part 61, Subpart V - Equipment Leaks (VHAP)	Emissions are less than 10 weight percent volatile hazardous air pollutants.

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;

2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;

2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.

2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

Permit Condition(s)	Streamlined (Subsumed) Requirements
Section II, Condition 2.8	Colorado Regulation No. 7, Section XVII.E.3.a [install NSCR and AFRC] S**tate-Only Requirement** until approved into Colorado's State Implementation (SIP) plan.

SECTION IV - General Permit Conditions

5/22/12 version

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.

c. Compliance certifications shall contain:

(i) the identification of each permit term and condition that is the basis of the certification;

(ii) the compliance status of the source;

(iii) whether compliance was continuous or intermittent;

(iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and

(v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.

d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II,.E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

(i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;

(ii) approves the use of an equivalent method;

(iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or

(iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for test methods applicable to such facility;

(ii) Safe sampling platform(s);

(iii) Safe access to sampling platform(s); and

(iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other

circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

(i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;

(ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;

(iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;

(iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

(v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation (if at all possible);

(vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;

(viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and

(x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but

not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

(i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;

(ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;

(iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;

(v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation (if at all possible);

(vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall

submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.

b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.

d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.

e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.

f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:

(i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and

(ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII.

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. the permitted facility was at the time being properly operated;

c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.

b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.

c. The permittee shall pay an APEN in accordance with the provisions of C.R.S. § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;

b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;

d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit . The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.

b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

"Prompt" is defined as follows:

a. Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or

b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

(i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;

(ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and

(iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.

c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

"Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:

(i) date, place as defined in the Operating Permit, and time of sampling or measurements;

(ii) date(s) on which analyses were performed;

(iii) the company or entity that performed the analysis;

(iv) the analytical techniques or methods used;

(v) the results of such analysis; and

(vi) the operating conditions at the time of sampling or measurement.

b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.

c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.

d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.

e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, ' II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.

b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.

d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.

b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

   Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.

d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

OPERATING PERMIT APPENDICES

A - INSPECTION INFORMATION
B - MONITORING AND PERMIT DEVIATION REPORT
C - COMPLIANCE CERTIFICATION REPORT
D - NOTIFICATION ADDRESSES
E - PERMIT ACRONYMS
F - PERMIT MODIFICATIONS
G - UNITS S002 – S004 (ENGINES) COMPLIANCE ASSURANCE MONITORING PLAN
H - UNIT S008 (GLYCOL DEHYDRATOR) COMPLIANCE ASSURANCE MONITORING PLAN
I - PERMANENT ENGINE AOS APPLICABILITY REPORTS

*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A - Inspection Information

Directions to Plant:

The Flank Compressor Station is located approximately 16 miles south of Stonington, CO in Baca County. The property surrounding the station is primarily farm land. There is a farmhouse located within 2,200 feet NW of the compressor building. Baca County Road M is two miles to the north which leads east across the state line into Kansas State Highway 51.

Safety Equipment Required:

Eye Protection with Side Shields
Hard Hat
Safety Shoes
Hearing Protection
Flame Retardant Clothing ("Nomex®")

Facility Plot Plan:

Figure 1 (following page) shows the plot plan as submitted on February 1, 1995 with the source's Title V Operating Permit Application.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing. Insignificant activities and/or sources of emissions as submitted in the application are as follows:

Venting of natural gas prior to engine overhaul (VOC emissions < 2 tpy)
Caterpillar Model No. G3408C LE, Natural Gas Fired Emergency Generator, 4-Cycle Lean Burn Engine, Rated at 425 hp and 7,665 Btu/hp-hr (emissions < APEN de minimis level)

*Note that this engine is subject to the RICE MACT. As specified in 40 CFR Part 63 Subpart ZZZZ § 63.6590(c) and (c)(1) this engine meets the MACT requirements by meeting the requirements in NSPS Subpart JJJJ but is not subject to requirements under NSPS Subpart JJJ. Therefore this engine is not subject any requirements under the RICE MACT and has been included as an insignificant activity. **In addition if emissions from this unit exceed 2 tons/yr an APEN must be filed.**

Emergency Flare
Degreaser
Ambitrol Tank H-1051, 6856 gal
Triethylene Glycol Tank 29430, 1500 gal
Lawnmower
Snowblower
Weed Wacker

Fugitive VOC emissions from equipment leaks (VOC < 2 tpy, formerly addressed under Colorado Construction Permit 95BA108)

Fuel (Gaseous) Burning Equipment less than 5 MMBtu/hr (Reg 3, Part C, Section II.E.3.k)

Description	Size (MMBtu/hr)	Associated with ONGP (Subpart HH) or NGTS (Subpart HHH) Facility?
Domestic Hot Water Heater	0.032	NGTS (Subpart HHH)
Flank Generator Bldg. Catalytic Heater	0.027	NGTS (Subpart HHH)
Flank Generator Bldg. Catalytic Heater	0.027	NGTS (Subpart HHH)
Furnace Control Room	0.075	NGTS (Subpart HHH)
Flank Starting Gas Catalytic Heater	0.005	NGTS (Subpart HHH)
Flank Jr. Fuel Catalytic Heater	0.005	ONGP (Subpart HH)
Separator/Field Fuel Gas Bldg. Catalytic Heater	0.012	ONGP (Subpart HH)
Vertical Heater Treater @ #14 Tank Battery	0.60	ONGP (Subpart HH)
Vertical Heater Treater @ #45 Tank Battery	0.50	ONGP (Subpart HH)
S006 Glycol Reboiler*	0.25	NGTS (Subpart HHH)
S007 Glycol Reboiler*	0.25	NGTS (Subpart HHH)
S008 Glycol Reboiler*	1.5	NGTS (Subpart HHH)
S009 Glycol Reboiler	1.5	ONGP (Subpart HH)

*Since these reboilers are part of the glycol dehydrators, which are an affected source subject to MACT requirements (40 CFR Part 63 Subpart HHH), these reboilers are not subject to the requirements under 40 CFR Part 63 Subpart DDDDD in accordance with § 63.7491(h). Note that although the facility is not a major source for purposes of Subpart HHH and Subpart HHH only applies to major sources, the Division considers that the intent of the exclusion under Subpart DDDDD would still apply.

Storage Tanks

Facility	Tank ID	Capacity (gallons)	Contents	Insignificant Activity Category	Associated with ONGP (Subpart HH) or NGTS (Subpart HHH) Facility?
Flank C. S.	T-2	4,500	Used Lube Oil	Reg 3, Part C, Section II.E.3.aaa	NGTS (Subpart HHH)
	T-4	6,500	Lube Oil		NGTS (Subpart HHH)
	FC-2a	1,000	Lube Oil (for Flank Jr. Engine)		ONGP (Subpart HH)
	T-12	12,600	Produced Water[1]	Reg 3, Part C, Section II.E.3.uu	NGTS (Subpart HHH)
	T-13	12,600	Condensate[2]	Reg 3, Part C, Section II.E.3.a	NGTS (Subpart HHH)
	T-14	300	Lube Oil	Reg 3, Part C, Section II.E.3.aaa	NGTS (Subpart HHH)
	T-15	1,000	Lube Oil		NGTS (Subpart HHH)
Flank Field (Station #1)[3]	Lube Oil Tank	900	Lube Oil		ONGP (Subpart HH)
	Condensate Tank	8,500	Condensate[2]	Reg 3, Part C, Section II.E.3.a	ONGP (Subpart HH)
Flank Tank Battery #10 (aka Pridemore)[3]	5547	12,600	Crude Oil[4]		ONGP (Subpart HH)
	5542	10,500	Crude Oil[4]		ONGP (Subpart HH)
	5286	12,600	Crude Oil[4]		ONGP (Subpart HH)
		8,400	Produced Water [1, 5]	Reg 3, Part C, Section II.E.3.uu	
Flank Tank Battery #14 (aka Tevebaugh)[3]	5606	12,600	Crude Oil[4]	Reg 3, Part C, Section II.E.3.a	ONGP (Subpart HH)
	5607	12,600	Crude Oil[4]		ONGP (Subpart HH)
	5608	12,600	Crude Oil[4]		ONGP (Subpart HH)
	5609	12,600	Crude Oil[4]		ONGP (Subpart HH)
	5614	12,600	Crude Oil[4]		ONGP (Subpart HH)
		8,400	Produced Water [1, 5]	Reg 3, Part C, Section II.E.3.uu	ONGP (Subpart HH)
	12-1238	21,000	Produced Water [1, 5]		ONGP (Subpart HH)
Flank Tank Battery #45	28412[6]	10,500	Crude Oil	Reg 3, Part C, Section II.E.3.a	ONGP (Subpart HH)
	28413[6]	12,600	Crude Oil		ONGP (Subpart HH)

[1] The produced water tanks are categorically considered insignificant activities. Information was submitted on October 30, 2012 indicating that the emissions from the produced water tank at the Flank CS are below the APEN de minimis level. Emissions from the produced water tanks at Battery #10 (Pridemore) and #14 (Tevebaugh) were provided in the minor mod application submitted on November 10, 2014. Emissions from the 21,000 gal (500 bbl) produced water tank at Battery #14 (Tevebaugh) are above the APEN de minimis level and an APEN was submitted on November 10, 2014.

[2]During processing of the first renewal, the source submitted information on October 30, 2009 indicating that the condensate tanks have emissions less than APEN de minimis levels. During processing of the second renewal, the source submitted information on October 30, 2012 indicating that emissions from the condensate tanks were below the APEN de minimis level.

[3] Tanks in these batteries are potentially subject to the requirements in Colorado Regulation No. 7, Section XVII.C if actual, uncontrolled emissions are equal to or greater than 6 tons/yr. A storage tank is defined in Section XVII.A.15 as "any fixed roof storage vessel or series of storage vessels that are manifolded together via liquid line".

[4] Information was submitted on July 12, 2012 indicating that the crude oil tanks have emissions below the APEN de minimis level.

[5] These tanks were constructed after August 23, 2011 and would be subject to the requirements in 40 CFR Part 60 Subpart OOOO "Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution" if any single storage vessel has the potential for VOC emissions at or above 6 tons/yr. Based on the information provided in the November 10, 2014 minor modification application, none of these tanks has the potential for VOC emissions at or above 6 tons/yr.

[6]tanks currently out of service

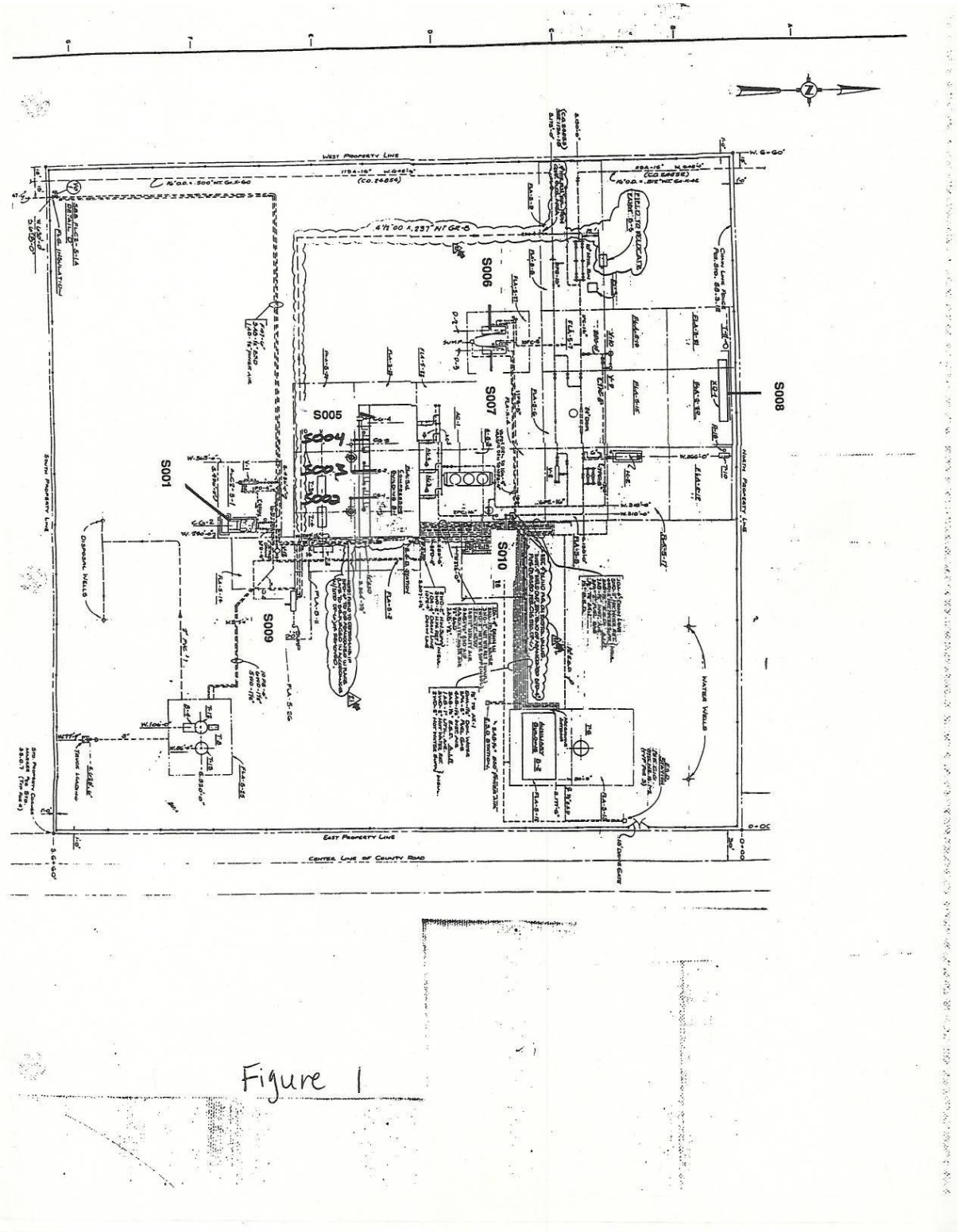
S001
S002
S003
S004
S005
S006
S007
S008
S009
S010
WEST PROPERTY LINE
EAST PROPERTY LINE
CENTER LINE OF COUNTY ROAD
WATER WELLS

Figure 1

APPENDIX B

Reporting Requirements and Definitions

with codes ver 8/20/14

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

(A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);

(B) fails to notify or report as required under the Act; or

(C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits.
All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported "promptly")

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "malfunction" shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

(1) A situation where emissions exceed an emission limitation or standard contained in the permit;

(2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;

(3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,

(4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

1 = Standard:	When the requirement is an emission limit or standard
2 = Process:	When the requirement is a production/process limit
3 = Monitor:	When the requirement is monitoring
4 = Test:	When the requirement is testing
5 = Maintenance:	When required maintenance is not performed
6 = Record:	When the requirement is recordkeeping
7 = Report:	When the requirement is reporting
8 = CAM:	A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
9 = Other:	When the deviation is not covered by any of the above categories

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.[1]
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

[1] For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Monitoring and Permit Deviation Report - Part I

1. Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Colorado Interstate Gas Company, LLC– Flank Compressor Station
OPERATING PERMIT NO: 95OPBA029
REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates)

Operating Permit Unit ID	Unit Description	Deviations Noted During Period?[1]		Deviation Code[2]	Malfunction/ Emergency Condition Reported During Period?	
		YES	NO		YES	NO
E001/ S001	Superior ICE, S/N 295619					
E002/ S002	Superior ICE, S/N 278739					
E003/ S003	Superior ICE, S/N 278729					
E004/ S004	Superior ICE, S/N 295039					
E005/ S005	Superior ICE, S/N 321619					
D001/ S007	Olman Dehydrator, S/N 41826					
D002/ S006	Olman Dehydrator, S/N 41825					
D003/ S008	Olman Heath Dehydrator with Condenser, S/N 296110					
D004/ S009	Olman Heath Dehydrator, S/N 1279P					
B001 & H001	Peerless Boiler, Rated at 1.68 MMBtu/hr, S/N 211-5426 Gas In-Line Heater, Rated at 4.0 MMBtu/hr					
	General Conditions					
	Insignificant Activities					

[1] See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

[2]Use the following entries as appropriate:

1 = Standard: When the requirement is an emission limit or standard
2 = Process: When the requirement is a production/process limit
3 = Monitor: When the requirement is monitoring
4 = Test: When the requirement is testing
5 = Maintenance: When required maintenance is not performed
6 = Record: When the requirement is recordkeeping
7 = Report: When the requirement is reporting

8 = CAM:	A situation in which an excursion or exceedance as defined in 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
9 = Other:	When the deviation is not covered by any of the above categories

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Colorado Interstate Gas Company, LLC – Flank Compressor Station
OPERATING PERMIT NO: 95OPBA029
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction_____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code _____ Division Code QA: _____

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/04 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction __XX____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06
END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code _____ Division Code QA: _____

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Colorado Interstate Gas Company, LLC – Flank Compressor Station

FACILITY IDENTIFICATION NUMBER: 0090001

PERMIT NUMBER: 95OPBA029

REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name Title

Signature of Responsible Official Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

APPENDIX C

Format for Annual Compliance Certification Reports

with codes ver 8/20/14

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Colorado Interstate Gas Company, LLC – Flank Compressor Station

OPERATING PERMIT NO: 95OPBA029
REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported [1]		Monitoring Method per Permit?[2]		Was compliance continuous or intermittent?[3]	
		Previous	Current	YES	NO	Continuous	Intermittent
E001/ S001	Superior ICE, S/N 295619						
E002/ S002	Superior ICE, S/N 278739						
E003/ S003	Superior ICE, S/N 278729						
E004/ S004	Superior ICE, S/N 295039						
E005/ S005	Superior ICE, S/N 321619						
D001/ S007	Olman Dehydrator, S/N 41826						
D002/ S006	Olman Dehydrator, S/N 41825						
D003/ S008	Olman Heath Dehydrator with Condenser, S/N 296110						
D004/ S009	Olman Heath Dehydrator, S/N 1279P						

Operating Permit Unit ID	Unit Description	Deviations Reported [1]		Monitoring Method per Permit?[2]		Was compliance continuous or intermittent?[3]	
		Previous	Current	YES	NO	Continuous	Intermittent
B001 & H001	Peerless Boiler, Rated at 1.68 MMBtu/hr, S/N 211-5426 Gas In-Line Heater, Rated at 4.0 MMBtu/hr						
	General Conditions						
	Insignificant Activities [4]						

[1] If deviations were noted in a previous deviation report , put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

[2] Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

[3] Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

[4] Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)

B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).

1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Annual Compliance Certification must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name Title

Signature Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

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APPENDIX D

Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-AT
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

502(b)(10) Changes, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in MMBtu/hr
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NOx -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants
NSPS -	New Source Performance Standards
P -	Process Weight Rate in Tons/Hr
PE -	Particulate Emissions
PM -	Particulate Matter

PM_{10} -	Particulate Matter Under 10 Microns
PSD -	Prevention of Significant Deterioration
PTE -	Potential To Emit
RACT -	Reasonably Available Control Technology
SCC -	Source Classification Code
SCF -	Standard Cubic Feet
SIC -	Standard Industrial Classification
SO_2 -	Sulfur Dioxide
TPY -	Tons Per Year
TSP -	Total Suspended Particulate
VOC -	Volatile Organic Compounds

APPENDIX F

Permit Modifications

DATE OF REVISION	MODIFICATION TYPE	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
DRAFT	Significant Modification	Section I	The AOS was corrected (new version date included) to corrected the web page address in Condition 2.2 and update the date in Condition 2.3.3.
		Section II.1	Revised Condition 1.6 in the summary table to include the correct MACT Subpart ZZZZ requirements.
		Section II.2	Revised Condition 2.10 in the summary table to include the correct MACT Subpart ZZZZ requirements.
		Section II.3	Revised Condition 3.6 in the summary table to include the correct MACT Subpart ZZZZ requirements.
		Section II.7	The portable monitoring language was updated (new version date) to correct the web page address.
		Section II.8	Revised the baseline pressure drop values in Condition 8.1.1.1.a
		Section II.9	Revised Condition 9.4 in the summary table to include the correct MACT Subpart DDDDD requirements. Added language under Condition 9.4 indicating the version of 40 CFR Part 63 Subpart DDDDD that is included in this Condition 9.4. Updated the language in Condition 9.4 to reflect the current language in the regulation. Removed the paragraphs in Condition 9.4 indicating that the requirements are only federally enforceable (they are also state enforceable, they were adopted into Colorado Regulation No. 8) and the paragraph regarding proposed rules (the proposed revisions were made final and are included in the permit). In addition, the paragraphs in Conditions 9.4.2 and 9.4.14 regarding "no action assurance" letters were removed (with the latest revisions to the regulations that language is no longer necessary).
		Section II.10	Added language indicating the version of 40 CFR Part 63 Subpart ZZZZ that was included in the permit. The requirements in this Condition 10 were revised to address revisions to Subpart ZZZZ. The paragraph in Condition 10 regarding proposed revisions to Subpart ZZZZ was removed (the proposed revisions were made final and are included in the permit).
		Appendix A	Added three new produced water tanks to the insignificant activity list. In addition, the notes in the table for the storage tanks were renumbered and/or rearranged, additional notes were added and the insignificant activity category for the crude oil tanks was revised (the specific insignificant activity category for crude oil tanks in Reg 3 was removed).
		Appendices B and C	The Reg 3 citation for the Responsible Official on the certifications in Appendices B and C were revised (the version date was also changed).
		Appendix D	Revised Appendix D to correct EPA address (compliance notifications) and to clarify permit mods sent to EPA.
		Appendix G	Revised the baseline pressure drop values included in the table (indicator range – indicator 1).

DATE OF REVISION	MODIFICATION TYPE	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION
DRAFT	Significant Modification	Appendix I	The AOS was corrected (new version date included) to revise the web page address on the appendix cover page and to update the date (on the first page under the disclaimer) on the NSPS JJJJ Example Report.

APPENDIX G

Units S002 thru S004 (Engines) Compliance Assurance Monitoring Plan

I. Background

a. Emission Unit Description:

Units S002 thru S004: Three (3) Superior, Model 16G825, Serial Nos. 30364, 278729, and 295039, Natural Gas Fired Internal Combustion Engines (Compressor Engines). Each engine is rated at 7844 Btu/hp-hr and 1475 hp.

b. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations:	Operating Permit Condition 2.1 (underlying Colorado Construction Permits 12BA485-1 thru -3)	
Emission Limitations:	NO_X	149.4 tons/yr
(for All Engines Combined)	CO	149.4 tons/yr

Monitoring Requirements: Pressure drop and catalyst inlet temperature

c. Control Technology:

Each engine is equipped with Non-Selective Catalytic Reduction (NSCR) to control NO_X and CO emissions.

II. Monitoring Approach

	Indicator 1	Indicator 2
I. Indicator Measurement Approach	Pressure Drop Across the Catalyst	Catalyst Inlet Temperature
	Pressure drop across the catalyst beds is measured using a differential pressure gauge.	The temperature of the exhaust gas into the catalyst will be measured using an in line thermocouple.
II. Indicator Range	Pressure drop shall be within + 2 inches/ - 5 inches of water (H_2O) from the pressure drop recorded during the performance tests required by Conditions 2.1.3. Minimum allowable pressure drop shall be 1 inch of H_2O. The pressure drop results (in inches of H_20) were as follows: E002 – 2.90, E003 – 2.46 and E004 –3.03. (All from October 2014 tests) Excursions trigger the permittee to investigate the catalyst performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in the log to be made available to the Division upon request.	The exhaust gas into the catalyst shall be greater than or equal to 750 º F and less than or equal to 1250 º F. An alarm will sound will before temperature at the catalyst inlet is outside of the indicator range. Excursions trigger the permitee to investigate the engine performance and make any repairs or adjustments necessary. Any adjustments or repairs shall be recorded in the log to be made available to the Division upon request.
III. Performance Criteria		
a. Data Representativeness	The pressure drop across the catalyst is measured at the catalyst inlet and outlet.	The catalyst inlet temperature is measured upstream of the catalyst.
b. Verification of Operational Status	N/A	N/A
c. QA/QC Practices and Criteria	Pressure gauges shall be calibrated and replaced in accordance with manufacturer's recommendations.	Thermocouples shall be calibrated and replaced in accordance with manufacturer's recommendations.
d. Monitoring Frequency	Monthly	Continuously.
e. Recordkeeping	The pressure drop shall be recorded monthly in a log to be made available to the Division upon request. Engine load shall be recorded simultaneously to provide a frame of reference for the pressure drop.	The catalyst inlet temperature shall be recorded daily in a log to be made available to the Division upon request.

III. Justification

a. Background:

The pollutant specific emission units are three (3) internal combustion engines used to drive compressors. Each engine is equipped with a non-selective catalytic reduction unit to control NO_X and CO emissions. The non-selective reduction catalyst reduces NO_X emissions to nitrogen and water as well as reducing CO emissions by formation of CO_2.

b. Rational for Selection of Performance Indicators:

The Division selected the pressure drop across the catalyst as it is an indicator of the catalyst performance. A change in the pressure drop across the catalyst can indicate if the catalyst is damaged or fouled, which would decrease catalyst performance. The inlet temperature to the catalyst was chosen as an indicator since the temperature is important for the proper activation of the catalyst.

The final RICE MACT requires the following for demonstrating continuous compliance for a 4-cycle rich burn RICE that is equipped with non-selective catalytic reduction to control formaldehyde emissions: continuous monitoring of inlet temperature to the catalyst (reduced to 4-hr averages) and monthly monitoring of the pressure drop across the catalyst. The CAM rule specifies that monitoring required for a MACT standard is presumptively acceptable monitoring, provided the monitoring is applicable to the performance of the control device (40 CFR Part 64 § 64.4(b)(4)). The MACT monitoring is for the same control device (non-selective catalytic reduction device) and since the monitoring specified in the CAM plan is similar to the monitoring specified in the RICE MACT, the Division considers that the indicators are acceptable for CAM.

Note that while the MACT also requires performance tests (semi-annual tests for similar units located at a major source, less frequent testing required for similar units located at area sources), the Title V permit includes quarterly portable monitoring in the permit as periodic monitoring. The portable monitoring requirement was in the original Title V permit, when no control devices were installed on the engines. Since the Division has consistently included quarterly portable monitoring as periodic monitoring for many engines, regardless of whether or not they were equipped with control devices, the Division has retained the quarterly portable monitoring as periodic monitoring and has not included it as a CAM indicator.

c. Rational for Selection of Indicator Ranges:

The indicator range for the catalyst inlet temperature is the same range as specified in the final RICE MACT, therefore, the Division considers that the range for catalyst inlet temperature is acceptable for CAM. The indicator for pressure drop is different than the range specified in the RICE MACT. The source proposed a wider pressure drop range since the engines need to be

available across a wide load range. The Division has accepted the indicator range proposed by the source. Note that a performance test is required for each engine to set the baseline for the indicator range (see Section II, Condition 2.1.3). In addition, as required by the RICE MACT, the indicator range shall be re-established following replacement of the catalyst. The permit requires that the source submit a minor modification application to revise the baseline values.

APPENDIX H

Unit S008 (Glycol Dehydrator) Compliance Assurance Monitoring Plan

I. Background

a. Emission Unit Description:

Olman Heath, Triethylene Glycol Dehydrator equipped with a flash tank, rated at 135 mmSCF/day. Serial No. 296110.

Note that flash tank emissions are routed to the reboiler for use as fuel.

d. Applicable Regulation, Emission Limit, Monitoring Requirements:

Regulations: Operating Permit condition 5.1 (underlying Colorado Construction Permit 12BA485-5)

Emission Limitations: VOC 37.9 tons/yr

e. Control Technology:

Glycol-Cooled Condenser

II. Monitoring Approach

	Indicator
I. Indicator Measurement Approach	Condenser Outlet Temperature
	The outlet temperature is monitored with a temperature transmitter and the data is recorded daily by site personnel when the unit is operating.
II. Indicator Range	An excursion is defined as any daily recorded value above 100 °F. Excursions trigger an inspection and corrective action.
III. Performance Criteria	
a. Data Representativeness	The temperature transmitter is installed downstream of the condenser (shell and tube exchanger).
b. QA/QC Practices and Criteria	The temperature transmitter shall be calibrated and maintained in accordance with manufacturer's recommendations. The minimum accuracy of the sensor is $\pm$ 0.43 º F.
c. Monitoring Frequency	Daily, when the unit is operating.
d. Averaging Time	None.

III. Justification

a. Background:

The pollutant specific emission unit (PSEU) is the glycol dehydrator. The glycol dehydrator can process 135 million cubic feet per day of natural gas. Emissions from the dehydrator still vent are routed to the glycol-cooled condenser to reduce VOC emissions. The still vent emissions are vented to the condenser at all times. Note that emissions from the flash tank are routed to the reboiler for use as fuel.

d. Rational for Selection of Performance Indicators:

Reduction of the emissions from the glycol dehydrator is required to meet permit limitations and these emissions are reduced with a glycol cooled condenser. The temperature downstream of the condenser (shell and tube exchanger) was chosen as the performance indicator. The condenser is designed to reduce the temperature of the glycol still column emissions to 100 º F by circulating a 50/50 glycol mixture. If the 50/50 mixture gets warmed up, it is directed to a cooler to maintain the temperature. If the glycol still vent emissions remain at 100 º F or lower, the cooler is bypassed and the mixture is directed back to the condenser. The condenser outlet temperature indicates the level of performance occurring in the condenser because the outlet temperature is the essential value in using GLYCalc to estimate emissions from the condenser controlled glycol dehydrator. To achieve acceptable performance from the condenser, the outlet temperature must be kept below a certain level (i.e., a maximum temperature). If the outlet temperature is not in the proper range, the unit is assumed to be malfunctioning and needs to be repaired.

e. Rational for Selection of Indicator Ranges:

The glycol-cooled condenser is designed not to exceed 100 º F at the outlet temperature. A temperature reading above 100 º F will automate the control valve to allow more flow through the glycol fin fan cooler, which reduces the circulating glycol temperature in the glycol system. As a result it will reduce the condenser outlet temperature back to 100 º F.

The glycol-cooled condenser is designed to operate under consistent conditions, therefore a minimum for the temperature range is not feasible. In addition, temperature ranges less the 100 º F would not prevent the glycol cooled condenser form operating properly. Furthermore freezing would not be an issue during extreme conditions because the glycol cooled condenser is insulated and is circulating a glycol mixture which is not prone to freezing conditions.

When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported.

APPENDIX I

Permanent Engine AOS Applicability Reports

ver 9/11/14

Note: A MS Word version of this Appendix can be found at:

https://www.colorado.gov/pacific/cdphe/alternate-operating-scenario-aos-reporting-forms

DISCLAIMER:

These are only example reports and do not cover all possible requirements.

Engine AOS Applicability Report Certification Language

All information for the Applicability Reports must be certified by either 1) for Operating Permits, a Responsible Official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. or 2) for Construction and General Permits, the person legally authorized to act on behalf of the source. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete. Further, I agree that by signing and submitting these documents I agree that any new requirements identified in the Applicability Report(s) shall be considered to be Applicable Requirements as defined in Colorado Regulation No. 3, section I.B.9., and that such requirements shall be enforceable by the Division and its agents and shall be considered to be revisions to the underlying permit(s) referenced in the Report(s) until such time as the Permit is revised to reflect the new requirements.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature Date Signed

Colorado Regulation No. 7
Sections XVI and XVII.E

DISCLAIMER: This is only an example report and does not cover all possible Reg 7 requirements.

Company: Acme Gas Processing
Source ID: 9991234
Permit #: 93OPXX999
Date: October 1, 2008

Determination of compliance and reporting requirements for a

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Construction date: July 1, 2007

Note: If the engine is exempt from a requirement due to construction date or was relocated from within Colorado, supporting documentation must be provided.

Determination of Regulation No. 7 requirements:

Regulation No. 7, § XVI

☐ Does not apply to this engine. Engine is not located in the ozone nonattainment area or does not have a manufacturer's design rate greater than 500 horsepower or did not commence operation on or after June 1, 2004.

☐ Does apply to this engine and applicable emissions controls have been installed.

Regulation No. 7, § XVII.E

☐ Does not apply to this engine. Engine does not have a maximum horsepower greater than 100 or the construction or relocation date precedes the applicability dates.

☐ Does apply to this engine. The following emission limits apply to the engine:

NO_X (g/hp-hr): 2.0
CO (g/hp-hr): 4.0
VOC (g/hp-hr): 1.0

Max Engine HP	Construction or Relocation Date	Emission Standards in g/hp-hr		
		NO_X	CO	VOC
100<Hp<500	January 1, 2008	2.0	4.0	1.0
	January 1, 2011	1.0	2.0	0.7
500≤Hp	July 1, 2007	2.0	4.0	1.0
	July 1, 2010	1.0	2.0	0.7

NSPS JJJJ Example Report Format

DISCLAIMER: This is only an example report and does not cover all possible JJJJ requirements.

Note that as of September 11, 2014 that the Division has not yet adopted NSPS JJJJ. Until such time as it does, any engine subject to NSPS will be subject only under Federal law. Once the Division adopts NSPS JJJJ, there will be an additional step added to the determination of the NSPS. Under the provisions of Regulation No. 6, Part B, § I.B (which is referenced in Part A), any engine relocated from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of NSPS JJJJ.

NSPS Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Company: Acme Gas Processing
Source ID: 9991234
Permit #: 93OPXX999
Date: October 1, 2008

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Engine Type: 2 Stroke Rich Burn
Manufacture Date: July 1, 2007
Date Engine Ordered: April 1, 2007

Note: If the engine is exempt from a requirement due to construction/manufacture date, supporting documentation must be provided.

Upon adoption of NSPS Subpart JJJJ into Colorado Regulation No. 6, Part A, if the engine is exempt because the engine was relocated within the state of Colorado, supporting documentation must be provided.

☐ NSPS JJJJ **does not apply** to this engine.

☐ NSPS JJJJ **does apply** to this engine.

Note: Using the format below, the source must submit to the Division an analysis of all of the NSPS JJJJ applicable requirements that apply to this specific engine. **The analysis below is an example only**, based on a hypothetical engine that is a rich burn engine, greater than 500 HP, with a manufacture date after July 1, 2007.

Determination of NSPS JJJJ requirements:

60.4230 Applicability

(a)(4)(i) Applies to this engine since it is a rich burn engine, greater than 500 HP, with a manufacture date after July 1, 2007.

60.4233 Emission Standards for Owners and Operators

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than 100 HP must comply with the standards in Table 1.

Non-Emergency SI, Natural Gas, HP≥500, Manufactured after 7/1/2007

NO_x	2.0 g/HP-hr or 160 ppmvd@15% O_2
CO	4.0 g/HP-hr or 540 ppmvd@15% O_2
VOC	1.0 g/HP-hr or 86 ppmvd@15% O_2

Other Requirements for Owners and Operators

60.4234 Emission standards must be met for the lifetime of the engine.

60.4235 N/A - Sulfur content of gasoline.

60.4236 N/A (for now) - After July 1, 2009 owners and operators may not install engines with a power rating ≥ 500HP that do not meet the emissions standards in 60.4230.

60.4237 N/A - Emergency Engines.

60.4238 - 60.4242 Compliance Requirements for Manufacturers – (Not Applicable)

60.4243 Compliance Requirements for Owners and Operators

(b)(2)(ii) To maintain compliance with the emission limits in 60.4233, owners of SI ICE ≥ 500HP must:

- Keep a maintenance plan;
- Keep records of conducted maintenance;
- Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions;
- Conduct an initial performance test; and
- Conduct subsequent performance tests every 8,760 hours or every three years, which ever comes first, in order to demonstrate compliance with the emission limits.

(g) Air to fuel ratio controllers (AFRCs) must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

60.4244 Testing Requirements for Owners and Operators

(a) Each performance test must be conducted within 10% of the highest achievable load and must comply with the testing requirements listed in 60.8 and Table 2 of NSPS JJJJ.

(b) Performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in 60.8(c). If the engine is non-operational when a performance test is due, the engine does not need to be started up just to test it, but will need to be tested immediately upon startup.

(c) Three separate test runs must be conducted for each performance test as specified by 60.8(f). Each run must be within 10% of max load and be at least 1 hour in duration.

(d) To determine compliance with the NO_x, CO, and VOC mass per unit output emission limitations, the measured concentration must be converted using the equations outlined in this section of NSPS JJJJ.

60.4245 Notification, Reports, and Records for Owners and Operators

(a) Owners of all stationary SI ICE must keep records of the following:
(1) All notifications submitted to comply with this subpart;
(2) Maintenance conducted on the engine;
(3) N/A - Manufacturer information for certified engines, and
(4) Documentation that shows non-certified engines are in compliance with the emission standards.

(b) N/A – For emergency engines only.

(c) Owners of non-certified engines ≥ 500HP must submit an initial notification as required in 60.7(a)(1) which includes the following information:
(1) Name and address of the owner or operator;
(2) The address of the affected source;
(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
(4) Emission control equipment; and
(5) Fuel used.

CONCLUSION OF FINDINGS (EXAMPLE ONLY)

In general, Acme's 1,235HP, Waukesha 7042 GSI engine is subject to the emissions limitations summarized in Table 1 of NSPS JJJJ. ACME will meet these emission limitations using an AFRC and a non-selective catalytic converter (NSCR). These emission rates will be met throughout the life of the engine. A maintenance plan will be kept and all maintenance activities will be recorded. Compliance with the emission limits will be confirmed by the initial performance tests, which shall be conducted following the procedures outlined in 60.4244. Copies of performance test results will be submitted within 60 days of the completion of each test. Since this is an uncertified engine, an initial notification will be submitted including all of the requested information in 40.4245 within 30 days of startup. ACME will keep records of all compliance related materials.

MACT ZZZZ Example Report Format

DISCLAIMER: This is only an example report and does not cover all possible ZZZZ requirements.

MACT Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Company: Acme Gas Processing
Source ID: 9991234
Permit #: 93OPXX999
Date: October 1, 2008

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Engine Type: 2 Stroke Rich Burn
Manufacture Date: July 1, 2007
Date Engine Ordered: April 1, 2007

Note: If the engine is exempt from a requirement due to construction/reconstruction date, supporting documentation must be provided.

☐ MACT ZZZZ **does not apply** to this engine.

☐ MACT ZZZZ **does apply** to this engine.

Note: Using the format below, the source must submit to the Division an analysis of all of the major source MACT ZZZZ applicable requirements that apply to this specific engine. **The analysis below is an example only**, based on a hypothetical new engine located at a major source of HAP emissions.

Determination of MACT ZZZZ requirements:

63.6585 Applicability

This subpart is applicable to Acme's engine since they are going to be operating a new stationary reciprocating internal combustion engine (RICE) at a major source of HAP emissions.

63.6590 What Parts of My Plant Does This Subpart Cover?

This subpart covers Acme's new stationary reciprocating internal combustion engine.

63.6595 When do I have to comply with this Subpart?

(a)(5) The engine must comply with the applicable emission limitations and operating limitations upon startup.

63.6600 Emission and operating limitations for RICE site rated at more than 500 hp

(a) The engine is subject to the emission limits in table 1a and the operating limits in table 1b. ACME will meet the emission limitations by reducing formaldehyde emissions by 76 percent and will maintain the catalyst such that the pressure drop does not change by more than 2 inches of H_2O at 100 % load plus or minus 10 percent from the pressure drop measured during the initial performance test and will maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 750 º F and less than or equal to 1250 º F.

The engine will be equipped with non-selective catalytic reduction and an air fuel controller to meet the emission limitations.

63.6601 & 63.6611 Requirements for 4SLB engines between 250 and 200 hp

These requirements do not apply.

63.6605 General Requirements

(a) The engine will comply with the emission and operating limitations at all times, except during periods of startup, shutdown and malfunction (SSM)

(b) The engine, including air pollution control and monitoring equipment shall be operating in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during SSM.

63.6610 Initial performance test

(a) the performance tests specified in Table 4 (select sampling port and measure O_2, moisture and formaldehyde at inlet and outlet of the control device) shall be conducted within 180 days of startup.

(b) & (c) not applicable construction did not commence between 12/19/02 and 6/15/04.

(d) previous performance tests have not been conducted on this unit within two years, therefore, this provision does not apply.

63.6615 Subsequent performance tests

Subsequent tests will be conducted as specified in Table 3. No additional testing is required for 4SRB engines meeting the formaldehyde percent reduction requirements.

63.6620 Performance test procedures

(b) tests must be conducted at 100 % load plus or minus 10%

(c) tests may not be conducted during periods of SSM.

(d) must conduct three 1-hr test runs

(e) equation (e)(1) shall be used to determine compliance with the percent reduction requirement.

(f), (g) & (h) Not applicable

(i) engine load during test shall be determined as specified in this paragraph.

63.6625 Monitoring, installation, operation and maintenance requirements

(a), (c) & (d) Not applicable

(b) a continuous parameter monitoring system (CPMS) shall be installed to measure the catalyst inlet temperature. The CPMS will meet the requirements in § 63.8

63.6630 Demonstrating initial compliance

(a) initial compliance shall be determined in accordance with table 5 (initial performance test must indicate formaldehyde reduction of 76 percent or more, a CPMS must be installed to measure inlet temperature of the catalyst and the pressure drop and catalyst inlet temperature must be recorded during the initial performance test).

(b) pressure differential will be established during the initial performance test.

(c) Notification of compliance status will be submitted and will contain the results of the initial compliance demonstration.

63.6635 Monitoring to demonstrate continuous compliance

(b) except for monitor malfunctions, associated repairs, and required QA/QC activities monitoring must be continuous at all time the engine is operating.

(c) data recorded during monitoring malfunctions, associated repairs and required QA/QC activities must not be used in data averages and calculations to report operating levels, however, all the valid data collected during other periods shall be used.

63.6640 Demonstrating continuous compliance

(a) continuous compliance will be demonstrated as specified in table 6 (collect catalyst inlet temperature data, reduce that data to 4-hr rolling average and maintain the 4-hr rolling averages to within the operating limitation and measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop meets the operating limitation.

(b) deviations from the emission and operating limitations must be reported per § 63.6550.
If catalyst is changed the operating parameters established during the initial performance test must be re-established.
When operating parameters re-established a performance test must also be conducted.

63.6645 Notifications

(a) Submit notifications in §§ 63.7(b) & (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) thru (e) & (g) & (h) that apply by dates specified.

(b) Not applicable. Acme unit started after effective dated for Subpart ZZZZ.

(c) Submit initial notification within 120 days after becoming subject to Subpart ZZZZ.

(d) thru (f) Not applicable. Acme engine greater than 500 hp and subject to requirements in Subpart ZZZZ.

(g) & (h) Submit notification of intent to conduct performance test and notification of compliance status.

63.6650 Reports

(a) Submit reports required by table 7 (compliance report and SSM reports (if actions inconsistent with SSM plan)

(b) Not applicable, an alternate schedule for report submittal has been approved. Reports will be submitted with title v reports

(c) Compliance reports to contain the following information: company name and address, statement by responsible official certifying accuracy, date of report and beginning and end of reporting period, if SSM the information in 63.10(d)(5)(i), if no deviations a statement saying that, if no periods when CPMS out of control a statement saying that.

(d) Not applicable, using CPMS

(e) For each deviation the information in (e)(1) thru (e)(12) shall be provided.

(f) Applicable. Compliance reports are submitted with title v reports. Compliance reports under Subpart ZZZZ include all necessary info for title v deviation report with respect to Subpart ZZZZ requirements.

(g) Not applicable. Acme engine not firing landfill or digester gas.

63.6655 Recordkeeping

(a) Retain records as follows: copy of each notification and report (including all documentation supporting any initial notification or notification of compliance status), records in 63.6(e)(iii) thru (v) related to SSM, and records of performance tests and evaluations.

(b) CPMS records including records in 63.10(b)(2)(vi) thru (xi), previous versions of the performance evaluation plan required by 63.8(d)(3) and requests for alternatives to the relative accuracy test for CPMS as required by 63.8(f)(6)(i).

(c) Not applicable. Acme engine not firing landfill or digester gas.

(d) Will keep records required in Table 6 (monthly pressure drop readings, 4-hr averages of catalyst inlet temperature) to show continuous compliance with emission and operating limits.

63.6660 Form and length of records

(a) records must be in a form suitable and readily available for expeditions review

(b) records must be retained for five years

(c) records must be retained on-site for first 2 years, may be retained off-site for the remaining 3 years

63.6665 General Provisions

This engine must comply with the general provisions as indicated in Table 8.

CONCLUSION OF FINDINGS (EXAMPLE ONLY)

Since this engine is subject to the requirements of MACT Subpart ZZZZ. The engine will be installed with a non-selective catalyst to meet the formaldehyde reduction requirement of 76% or more. An initial performance test will be conducted within 180 days of startup to demonstrate compliance with the formaldehyde percent reduction requirement. During the initial performance test, the pressure drop across the catalyst will be

measured. A CPMS will be installed to measure the catalyst inlet temperature. Continuous compliance will be demonstrated by keeping the 4-hr rolling averages of catalyst inlet temperature within the operating limitations and recording the pressure drop across the catalyst monthly and demonstrating that the pressure drop is within the operating limitation.

Records, notifications and reports will be submitted as required. To that end required reports and notifications include initial notification, notice of intent to conduct performance test, notification of compliance status, SSM reports (if required) and semi-annual compliance reports.